The Price Wrecker

GENERAL CATALOG NO. 182

S-M-A-S-H-E-D P-R-I-C-E-S

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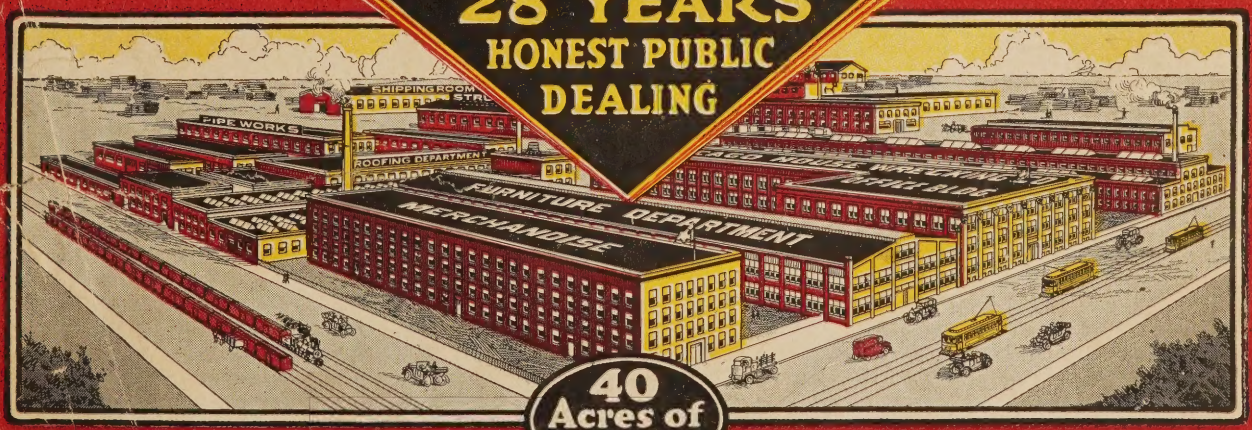

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Read This Interesting Story of Our Growth and Success

The History of This Great Institution Reads Like a Romance

¶ With the inception of this great company we "Blazed the Trail" to true bargain buying. Founded in 1892, the Chicago House Wrecking Company started its career on a new idea—to buy and sell nothing but bargains! From that day to this, twenty-eight years of honest public dealing, we have never swerved from our original plan and purpose. Each year has marked our steady growth in power to serve our growing host of regular customers. Each year our growing financial strength—our increasing cash buying power—has brought us added ability to control the sources of those tremendous bargains that have made our name famous from ocean to ocean. From a modest beginning we have grown with rapid strides, until today we are recognized as the leading "spot cash" buyers of brand new desirable merchandise at forced sales. Big manufacturers seeking a quick outlet for surplus stocks naturally turn to us for "ready" cash. So, their loss means your gain. We have the first pick and choice at sheriffs' and receivers' sales, big auction events and exposition sales.

¶ Our first great undertaking was the purchase and dismantling of the World's Columbian Exposition in 1892; then followed our purchase of the Trans-Mississippi Exposition of Omaha in 1899, the Pan-American Exposition of Buffalo in 1901, and later the Louisiana Purchase Exposition of St. Louis in 1904. Since that time we have successfully executed the greatest merchandising and dismantling contracts in the history of the world. During the first twenty years of our existence we operated exclusively under the name of The Chicago House Wrecking Company, but in 1913 we decided that the public would more fully realize the personal character of our business with our names at the head, and so we concluded to operate since that time as Harris Brothers Company.

¶ And now, we place before you stupendous quantities of material of every kind recently secured by us in gigantic purchases of complete Army Camps, together with large quantities of material from other big Government purchases. Bigger, better, greater values now await the quick wise buyer. Read the brief outline of the big Army Camps which have just been awarded to us on the next pages. All the material secured in these great purchases are now ready for distribution to the people of the nation.

HARRIS BROTHERS CO. OWNERS
Chicago House Wrecking Co.

GENERAL INDEX

We urge you to buy quickly and liberally from this book. Anticipate your needs as far as possible—then order at once. Prices are guaranteed ONLY until our present stock is sold—then they will be subject to market changes. If the prices have advanced on any of the material you order, you will be notified before shipment is made.

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Roofing, Siding and Ceiling List
Machinery and Plant Equipment Book

Watts Corn Sheller Sale Catalog

Special Cream Separator Sale Book

FREIGHT SHIPMENTS

The Freight Tables Below The tables below show the freight rates per 100 lbs. on shipments from Chicago to properly distributed cities in each state. The railroad companies use these cities as a basis for figuring freight rates to the town in the immediate vicinity of the cities given. By referring to the classification and the freight tables below, you can come within a few cents of the correct freight rate to your town from Chicago.

How to Figure Freight Charge First look through the classification table directly below and find what class covers the merchandise you wish shipped; then refer to the table of freight rates to the nearest town to your shipping point. Follow the line of that town to the column showing the classification of the goods you wish shipped, and this will give you the freight rate per 100 lbs. within a few cents of the actual charge.

CLASSIFICATION OF MATERIAL AND MERCHANDISE WHEN SHIPPED BY FREIGHT

The railroad companies discriminate in the goods to be shipped and classify them as shown in the tables below in four different classifications. This is how they base the freight rates on all merchandise to every section of the country.

In order that you can figure the correct freight rate to your station, we have classified merchandise which will cover shipments of almost any nature. If you are unable to find the particular article you wish shipped, find that which nearest resembles it.

	Class
Adding Machines	*1½T1
Angle Bars and Plates	4
Anvils	4
Anvil Vise and Drill Comb	3
Asbestos Felt or Paper	3
Asbestos Roofing	4
Asphalt Shingles	4
Asphalt Paint in Wood	3
Barb Wire	4
Barn Door Hanger Rails	3
Barrows, Wheel	1½T1
Basins, Lavatory Iron	2
Bath Tubs, Iron & Steel	1
Bath Tub Fittings	2
Bathroom Cabinets	1
Beams, Columns, Guides, Trusses	4
Beams, Iron or Steel	4
Beds, Folding Iron	2
Beds, Three Pieces, Bedstead Ends and Rails	2
Bedstead Rails and Wire Springs	1
Bedstead Slats, Wooden	3
Bells	1
Belting	2
Blowers, Air	1
Boilers, Heating, Iron or Steel	2
Buckets, Building, Conveying, Dredging and Dump Hoisting	2
Buffets and China Closets or Sideboards Combined	1½T1
Cabinets, China	**D1
Cabinets, Kitchen	D1
Cabinets, Medicine, Toilet, Bathroom or Lavatory	1
Cabinets, Stove or Range	1
Cabinets, Wall	1½T1
Camp Chairs	1
Carpets	1
Casings, Boiler	4
Chairs, Wooden	D1
Chairs, Revolving	D1
Chairs & Ladders, Combined	1½T1
Channels, Iron or Steel	4
Columns, Wooden	3
Columns, Iron or Steel	4
Concrete Block Machines	1
Conductor Pipe	1
Console Mirrors	1
Corn Shellers, hand	2
Corn Shellers, Power	1
Couches, Wooden	D1
Couches, Bamboo, Cane, Fibre & Grass Rattan Reed or Willow	***3T1
Cream Separators, Centrifugal	2
Desks	2
Doors, Wood, Glazed	1
Doors, Wood, Not Glazed	3
Doors, Vault	2
Drain Boards and Sinks, Backs, Combinations	1
Drain Boards, Iron or Steel	3
Eave Troughs	1
Engines, Steam	1
Feed Boxes, iron or steel	1½
Fence Gates, iron or steel	3
Fence Post, iron or steel	4
Fittings, Bath Tub	2
Fittings, Lavatory	2
Fittings, Pipe	4
Flooring, Tile	2
Flues, Boiler	4
Forges, Portable	1
Furnace, Castings	3
Furnace, Heating	3
Gates, Wood, Iron or Wire	3
Gates, Wood and Iron Comb	1
Glass Comm. Window Boxed	3
Glass, Plate, not bent, 120 in. or under	3
Exceeding 120 in. but not over 15 ft.	
Hardware	2
Hay Presses	1
Hay Presses and Engines	1
Houses, Portable	2
Huskers, Corn, Power	1
Incubators	1
Iron Angles, Band, Structural	4
Jack Screws	1
Lath, Wooden	4
Lathing, Metal	4
Lavatories, Iron or Steel	2
Lavatories, Iron Basins or Bowls	2
Linoleum	2
Lumber	4
Machinery	1
Mantels, Wooden	2
Nails, Iron or Steel	4
Paint in kits or pails	4
Paper, Building	3
Paper, Roofing	3
Piling, Wooden	4
Pipe Fittings	4
Pipe, Iron	4
Plasterboard	3
Posts, Iron or steel	4
Posts, Wooden	4
Pulleys	3
Radiators, Hot Water or Steam	3
Range, Boiler Stands	2
Range, Closet	1
Range, Gas and Gasoline	1
Ridge Roll Metal	2
Roofing, Iron	4
Range Boilers	3
Ranges and Stoves, Coal	3
Refrigerators	2
Roofing, Prepared	4
Rope, Wire	4
Rugs	1
Safes, Kitchen	1½
Safes, Iron	2
Sewing Machines	1
Shingles, Wooden	4
Sash, Glazed	2
Sash, Unglazed	3
Stoves (See Ranges).	
Wallboard	3
Wire, Barbed	4
Wire Gates	3
Water Closet Bowls, Iron	3
Wire Fencing	3

*1½T1 Means 1½ times 1st class.

**D1 Means Double 1st class.

***3T1 Means 3 times 1st class.

THE FREIGHT RATES BELOW ARE FOR 100 LBS. TO TOWNS COVERING EACH STATE

	1st Class Per 100 lbs.	2nd Class Per 100 lbs.	3rd Class Per 100 lbs.	4th Class Per 100 lbs.
ALABAMA—				
Birmingham	$1.86	$1.57	$1.31	$1.07
Brewton	1.97	1.64	1.39	1.13
Mobile	1.33	1.13	.94	.73
Montgomery	1.87	1.64	1.40	1.10
ARIZONA—				
Phoenix	3.63	3.14	2.62	2.19
Tucson	3.63	3.14	2.62	2.19
ARKANSAS—				
Arkansas City	1.50	1.27	.97	.74
Fort Smith	1.63	1.39	1.09	.87
Hot Springs	1.94	1.65	1.32	1.02
Little Rock	1.50	1.27	.97	.74
Texarkana	1.82	1.53	1.25	1.07
CALIFORNIA—				
Bakersfield	4.25	3.69	3.07	2.59
Los Angeles	4.25	3.69	3.07	2.59
San Francisco	4.25	3.69	3.07	2.59
COLORADO—				
Denver	2.25	1.75	1.38	1.07
Durango	4.00	3.38	2.69	2.00
Grand Junction	3.32	2.79	2.32	1.87
Julesburg	2.10	1.77	1.34	1.07
Leadville	3.32	2.79	2.32	1.87
CONNECTICUT—				
Hartford	1.20	1.05	.80	.57
DELAWARE—				
Dover	1.13	.99	.75	.53
DIS. OF COLUMBIA—				
Washington	1.10	.96	.72	.50
FLORIDA—				
Jacksonville	1.83	1.55	1.37	1.20
Miami	3.04	2.64	2.35	2.07
Pensacola	1.38	1.13	.94	.73
Tallahassee	2.48	2.14	1.84	1.49
Tampa	2.46	2.09	1.79	1.60
GEORGIA—				
Atlanta	1.98	1.70	1.44	1.17
Macon	1.98	1.70	1.44	1.17
Savannah	1.83	1.54	1.37	1.20
Waycross	2.33	2.00	1.77	1.47
IDAHO—				
Boise	3.52	3.02	2.50	2.07
Pocatello	3.32	2.79	2.32	1.87
ILLINOIS—				
Cairo	.59	.48	.38	.30
Joliet	.27	.22	.19	.15
Rock Island	.47	.38	.29	.24
Springfield	.48	.39	.30	.24
INDIANA—				
Evansville	.64	.55	.43	.32
Fort Wayne	.51	.43	.34	.26
Indianapolis	.57	.48	.37	.28
Richmond	.60	.51	.40	.30
South Bend	.42	.36	.28	.22
IOWA—				
Des Moines	.75	.60	.45	.34
Fort Dodge	.82	.65	.49	.37
Sioux City	1.00	.82	.57	.40
KANSAS—				
Dodge City	2.03	1.74	1.35	1.04
Great Bend	1.82	1.53	1.19	.97
Kansas City	1.00	.82	.57	.40
Topeka	1.25	1.03	.74	.54
Wichita	1.63	1.39	1.08	.82
KENTUCKY—				
Frankfort	$0.92	$0.78	$0.64	$0.49
Hopkinsville	1.00	.82	.69	.58
Louisville	.67	.57	.45	.34
Morehead	1.22	1.02	.79	.59
LOUISIANA—				
Lake Charles	1.94	1.65	1.34	1.15
New Orleans	1.33	1.13	.94	.73
Shreveport	1.82	1.53	1.25	1.07
MAINE—				
Bangor	1.20	1.05	.80	.57
MARYLAND—				
Baltimore	1.10	.96	.72	.50
MASSACHUSETTS—				
Boston	1.20	1.05	.80	.57
MICHIGAN—				
Bessemer	.82	.69	.55	.35
Detroit	.63	.54	.43	.32
Grand Rapids	.59	.50	.40	.30
Traverse City	.77	.66	.52	.39
MINNESOTA—				
Aitkin	1.16	.98	.78	.53
Crookston	1.49	1.24	1.00	.68
Duluth	.82	.69	.55	.35
Grand Rapids	1.23	1.03	.83	.55
Minneapolis	.75	.63	.50	.35
Winona	.63	.53	.42	.29
MISSISSIPPI—				
Hattiesburg	1.62	1.37	1.17	.98
Jackson	1.58	1.32	1.13	.95
Natchez	1.38	1.13	.94	.73
MISSOURI—				
Kansas City	1.00	.82	.57	.40
St. Louis	.58	.47	.39	.29
Springfield	1.03	.90	.63	.47
MONTANA—				
Billings	3.13	2.62	2.12	1.70
Glasgow	2.82	2.40	1.94	1.48
Havre	3.13	2.68	2.18	1.79
Helena	3.32	2.83	2.32	1.87
Kalispell	3.44	2.94	2.42	1.97
Miles City	2.82	2.40	1.94	1.48
NEBRASKA—				
Lincoln	1.07	.88	.62	.45
North Platte	1.95	1.63	1.24	.98
Omaha	1.00	.82	.57	.40
NEVADA—				
Austin	4.57	4.10	3.62	3.02
Carson City	3.94	3.45	2.98	2.51
NEW HAMPSHIRE—				
Concord	1.20	1.05	.80	.65
NEW JERSEY—				
Atlantic City	1.18	1.04	.80	.58
Trenton	1.13	.99	.75	.53
NEW MEXICO—				
Gallup	3.44	2.92	2.42	2.07
Santa Fe	2.75	2.33	1.88	1.57
Silver City	3.25	2.77	2.28	1.95
NEW YORK—				
Albany	1.08	.95	.72	.51
Buffalo	.78	.66	.52	.39
New York	1.13	.99	.75	.53
Syracuse	.90	.79	.60	.42
NORTH CAROLINA—				
Raleigh	1.67	1.44	1.13	.84
Wilmington	1.67	1.40	1.09	.84
NORTH DAKOTA—				
Bismarck	$2.00	$1.69	$1.34	$0.96
Fargo	1.47	1.24	.97	.68
Grand Forks	1.55	1.30	1.04	.73
Minot	2.19	1.87	1.50	1.09
Williston	2.49	2.08	1.70	1.24
OHIO—				
Cincinnati	.64	.55	.43	.32
Columbus	.67	.57	.45	.33
Toledo	.61	.52	.41	.31
OKLAHOMA—				
Oklahoma City	1.88	1.62	1.34	1.09
OREGON—				
Portland	4.25	3.69	3.07	2.59
PENNSYLVANIA—				
Harrisburg	1.10	.96	.72	.50
Philadelphia	1.11	.97	.73	.51
Pittsburgh	.78	.66	.52	.39
RHODE ISLAND—				
Providence	1.20	1.05	.80	.57
SOUTH CAROLINA—				
Charleston	1.83	1.55	1.37	1.20
Greenville	1.95	1.73	1.48	1.18
Sumter	1.98	1.73	1.48	1.17
SOUTH DAKOTA—				
Aberdeen	1.43	1.19	.84	.63
Bellefourche	2.43	2.03	1.69	1.38
Sioux Falls	1.04	.85	.59	.43
Watertown	1.20	1.05	.80	.57
TENNESSEE—				
Jackson	1.33	1.09	.89	.73
Knoxville	1.59	1.36	1.14	.91
Memphis	1.07	.82	.69	.54
Nashville	1.23	1.04	.62	.67
TEXAS—				
El Paso	2.75	2.33	1.90	1.63
Fort Worth	2.09	1.77	1.45	1.33
Houston	2.09	1.77	1.45	1.33
UTAH—				
Marysvale	3.94	3.39	2.89	2.42
Salt Lake City	3.32	2.79	2.32	1.87
VERMONT—				
Montpelier	1.20	1.05	.88	.57
VIRGINIA—				
Marion	1.25	1.09	82	.59
Richmond	1.10	.96	.72	.50
Rocky Mount	1.40	1.20	.91	.66
WASHINGTON—				
Seattle	4.25	3.69	3.07	2.59
Spokane	3.63	3.14	2.62	2.19
WEST VIRGINIA—				
Charleston	.78	.66	.52	.39
Elkins	.90	.79	.60	.45
Wheeling	.78	.66	.52	.39
WISCONSIN—				
Ashland	.82	.69	.55	.35
La Crosse	.63	.53	.42	.29
Madison	.48	.42	.32	.22
Marinette	.54	.45	.37	.29
Milwaukee	.38	.32	.25	.19
WYOMING—				
Cheyenne	2.25	1.82	1.38	1.07
Green River	3.19	2.69	2.23	1.79
Lander	3.50	2.92	2.31	1.85
Sheridan	3.13	2.62	2.12	1.70

EXPRESS SHIPMENTS

The Express Rates Below In the tables below you will find the latest express rates per 100 lbs. on shipments from Chicago to well distributed cities in each state. You can use these cities to figure charges to your town. Look over the table and find the city nearest to you. If you wish to know the exact express charges on any article in this book to your station, write us, or ask your express agent.

How to Figure Express Charges Refer to the weight of the articles to be shipped given in the description in our catalog; then find the express rate per 100 lbs. to the nearest point to your town given in the express rates below; then note the rate per 100 lbs. in the scale of express charges, and follow the line of the weight of your goods to the column headed by the rate per 100 lbs. to your station. This will give you the correct express charges.

The Express Rates Below Are For 100 Pounds to Towns Covering Each State

From Chicago to	P. Post Zone	Per 100 Pounds
ALABAMA—		
Birmingham	4	$2.80
Brewton	5	3.30
Mobile	5	3.41
Montgomery	5	3.02
ARIZONA		
Phoenix	7	8.96
Tucson	6	8.63
ARKANSAS—		
Arkansas City	4	2.91
Fort Smith	4	3.35
Hot Springs	4	3.35
Little Rock	4	3.08
Texarkana	5	3.[illegible]
CALIFORNIA—		
Bakersfield	7	9.95
Los Angeles	7	9.95
San Francisco	8	10.39
COLORADO—		
Denver	5	4.78
Durango	6	6.65
Grand Junction	6	6.31
Julesburg	5	4.23
Leadville	5	5.66
CONNECTICUT—		
Hartford	5	2.97
DELAWARE—		
Dover	5	2.69
DIST. OF COLUM.		
Washington	4	2.64
FLORIDA—		
Jacksonville	5	3.96
Miami	6	5.17
Pensacola	5	3.57
Tallahassee	5	3.68
Tampa	5	4.56
GEORGIA—		
Atlanta	4	3.02
Macon	5	3.3[illegible]
GEORGIA—Cont.		
Savannah	5	$3.68
Waycross	5	3.63
IDAHO—		
Boise	7	8.80
Pocatello	6	7.86
ILLINOIS—		
Cairo	4	1.81
Joliet	1	.82
Rock Island	2	1.26
Springfield	3	1.43
INDIANA—		
Evansville	3	1.54
Fort Wayne	2	1.2[illegible]
Indianapolis	2	1.26
Richmond	3	1.54
South Bend	2	.9[illegible]
IOWA—		
Des Moines	3	2.14
Fort Dodge	4	2.31
Sioux City	4	2.86
KANSAS—		
Dodge City	5	4.07
Great Bend	5	3.63
Kansas City	4	2.47
Topeka	4	2.64
Wichita	4	3.63
KENTUCKY—		
Frankfort	3	1.70
Hopkinsville	4	1.90
Louisville	3	1.54
Morehead	4	1.92
LOUISIANA—		
Lake Charles	5	3.96
New Orleans	5	3.57
Shreveport	5	3.74
MAINE—		
Bangor	5	3.41
MARYLAND—		
Baltimore	4	2.6[illegible]
MASSACHUS'TS—		
Boston	5	$2.91
MICHIGAN—		
Bessemer	4	2.64
Detroit	3	1.54
Grand Rapids	2	1.26
Traverse City	3	1.92
MINNESOTA—		
Aitkin	4	3.08
Crookston	4	3.52
Duluth	4	2.80
Grand Rapids	4	2.19
Minneapolis	4	2.36
Winona	3	2.03
MISSISSIPPI—		
Hattiesburg	5	3.19
Jackson	5	3.08
Natchez	5	3.35
MISSOURI—		
Kansas City	4	2.47
St. Louis	3	1.70
Springfield	4	2.64
MONTANA—		
Billings	6	6.10
Glasgow	6	7.09
Havre	6	6.27
Helena	6	7.37
Kalispell	6	7.64
Miles City	5	5.33
NEBRASKA—		
Lincoln	4	2.86
North Platte	5	3.90
Omaha	4	2.64
NEVADA—		
Austin	7	9.13
Carson City	7	9.68
NEW HAMP.—		
Concord	5	2.97
NEW JERSEY—		
Atlantic City	5	2.80
Trenton	5	2.80
NEW MEXICO—		
Gallup	6	$7.04
Santa Fe	6	5.39
Silver City	6	7.31
NEW YORK—		
Albany	5	2.69
Buffalo	4	2.14
New York	5	2.80
Syracuse	4	2.36
N. CAROLINA—		
Raleigh	5	3.41
Wilmington	5	3.68
NORTH DAKOTA—		
Bismarck	5	4.18
Fargo	4	3.35
Grand Forks	5	3.74
Minot	5	4.34
Williston	5	4.67
OHIO—		
Cincinnati	3	1.54
Columbus	3	1.81
Toledo	3	1.43
OKLAHOMA—		
Oklahoma City	5	3.96
OREGON—		
Portland	7	9.90
PENNSYLVANIA—		
Harrisburg	4	2.53
Philadelphia	5	2.69
Pittsburgh	4	2.03
RHODE ISLAND—		
Providence	5	2.97
S. CAROLINA—		
Charleston	5	3.90
Greenville	4	3.41
Sumter	5	3.6[illegible]
SOUTH DAKOTA—		
Aberdeen	4	3.63
S. DAKOTA—Cont.		
Bellefourche	5	$4.34
Sioux Falls	4	2.86
Watertown	4	3.19
TENNESSEE—		
Jackson	4	2.31
Knoxville	4	2.80
Memphis	4	2.47
Nashville	4	2.09
TEXAS—		
El Paso	6	6.71
Fort Worth	5	4.40
Houston	5	4.67
UTAH—		
Marysvale	6	8.19
Salt Lake City	6	7.42
VERMONT—		
Montpelier	5	2.91
VIRGINIA—		
Marion	4	2.86
Richmond	4	3.02
Rocky Mount	4	3.02
WASHINGTON—		
Seattle	7	9.62
Spokane	7	8.69
WEST VIRGINIA—		
Charleston	4	2.20
Elkins	4	2.58
Wheeling	4	1.92
WISCONSIN—		
Ashland	4	2.64
La Crosse	3	1.65
Madison	2	1.43
Marinette	2	2.09
Milwaukee	2	1.15
WYOMING—		
Cheyenne	5	4.73
Green River	6	6.54
Lander	6	6.05
Sheridan	5	5.33

The Scale of Express Charges Below is Based on the 100 Pound Rate

Rate per 100 lbs....	$0.82	$0.99	$1.15	$1.26	$1.43	$1.54	$1.65	$1.70	$1.81	$1.92	$1.98	$2.03	$2.09	$2.14	$2.20
CHARGES ON															
Package of 1 lb....	.29	.29	.29	.29	.29	.29	.29	.29	.29	.29	.30	.30	.30	.30	.30
Package of 2 lbs....	.29	.29	.30	.30	.30	.30	.30	.31	.31	.31	.31	.31	.31	.31	.31
Package of 5 lbs....	.30	.31	.32	.32	.33	.34	.34	.34	.35	.35	.36	.36	.36	.36	.37
Package of 10 lbs....	.33	.34	.36	.37	.38	.40	.41	.42	.43	.44	.44	.45	.45	.46	.46
Package of 15 lbs....	.35	.38	.41	.42	.45	.46	.48	.48	.51	.52	.53	.54	.55	.55	.56
Package of 20 lbs....	.38	.42	.45	.47	.51	.53	.55	.56	.58	.60	.62	.63	.64	.65	.66
Package of 25 lbs....	.41	.45	.49	.52	.56	.59	.62	.63	.66	.68	.70	.71	.73	.74	.76
Package of 30 lbs....	.44	.48	.54	.57	.62	.65	.68	.70	.74	.77	.78	.80	.81	.84	.85
Package of 35 lbs....	.46	.53	.58	.62	.68	.71	.76	.81	.85	.85	.87	.89	.91	.92	.95
Package of 40 lbs....	.49	.56	.63	.67	.74	.78	.82	.85	.89	.93	.96	.98	1.00	1.02	1.04
Package of 45 lbs....	.52	.59	.67	.71	.79	.85	.89	.91	.97	1.01	1.04	1.07	1.09	1.11	1.14

Rate, 100 lbs..	$2.31	$2.36	$2.47	$2.53	$2.58	$2.64	$2.69	$2.80	$2.86	$2.91	$2.97	$3.02	$3.08	$3.19	$3.24	$3.30	$3.35	$3.41	$3.52	$3.57	$3.63	$3.68
CHARGES ON																						
Pkg. of 1 lb..	.30	.30	.30	.30	.30	.30	.30	.30	.30	.30	.30	.30	.31	.31	.31	.31	.31	.31	.31	.31	.31	.31
Pkg. of 2 lbs.	.32	.32	.32	.32	.32	.32	.32	.33	.33	.33	.33	.33	.33	.33	.33	.33	.34	.34	.34	.34	.34	.34
Pkg. of 5 lbs.	.37	.37	.38	.38	.38	.40	.40	.40	.41	.41	.41	.41	.42	.42	.42	.43	.43	.43	.44	.44	.44	.44
Pkg. of 10 lbs.	.47	.48	.49	.49	.51	.51	.52	.53	.53	.54	.54	.55	.55	.56	.57	.57	.58	.58	.59	.60	.60	.62
Pkg. of 15 lbs.	.58	.58	.60	.62	.62	.63	.64	.65	.66	.67	.68	.68	.69	.71	.71	.73	.74	.75	.76	.77	.78	.78
Pkg. of 20 lbs.	.68	.69	.71	.73	.74	.75	.76	.78	.79	.80	.81	.82	.84	.86	.87	.88	.89	.90	.92	.93	.95	.96
Pkg. of 25 lbs.	.78	.79	.82	.84	.85	.87	.88	.90	.92	.93	.95	.96	.98	1.00	1.01	1.03	1.04	1.06	1.09	1.10	1.11	1.12
Pkg. of 30 lbs.	.88	.90	.93	.95	.97	.98	1.00	1.03	1.04	1.07	1.08	1.10	1.11	1.14	1.17	1.18	1.20	1.21	1.24	1.26	1.28	1.30
Pkg. of 35 lbs.	.99	1.00	1.04	1.07	1.08	1.10	1.12	1.15	1.18	1.20	1.22	1.23	1.25	1.30	1.31	1.33	1.35	1.37	1.41	1.43	1.45	1.46
Pkg. of 40 lbs.	1.09	1.11	1.15	1.18	1.20	1.22	1.24	1.29	1.31	1.33	1.35	1.37	1.40	1.44	1.46	1.48	1.51	1.53	1.57	1.59	1.62	1.64
Pkg. of 45 lbs.	1.19	1.21	1.26	1.29	1.31	1.34	1.36	1.41	1.44	1.46	1.48	1.51	1.54	1.58	1.61	1.64	1.66	1.68	1.74	1.76	1.78	1.80

Rate per 100 lbs....	$3.74	$3.90	$3.96	$4.01	$4.07	$4.18	$4.23	$4.34	$4.40	$4.56	$4.67	$4.73	$4.78	$5.17	$5.33	$5.39	$5.66	$6.05	$6.10	$6.21	$6.27
CHARGES ON																					
Package of 1 lb...	.31	.31	.31	.31	.31	.32	.32	.32	.32	.32	.32	.32	.32	.32	.33	.33	.33	.33	.33	.33	.33
Package of 2 lbs..	.34	.35	.35	.35	.35	.35	.35	.35	.35	.36	.36	.36	.36	.37	.37	.37	.38	.38	.40	.40	.40
Package of 5 lbs..	.45	.45	.46	.46	.46	.47	.47	.47	.48	.48	.49	.49	.49	.52	.53	.53	.54	.56	.56	.57	.57
Package of 10 lbs..	.62	.64	.64	.65	.65	.66	.67	.68	.68	.70	.71	.71	.73	.76	.78	.78	.81	.85	.86	.87	.87
Package of 15 lbs..	.79	.81	.82	.84	.85	.86	.87	.88	.89	.91	.93	.95	.95	1.01	1.03	1.04	1.08	1.14	1.14	1.17	1.18
Package of 20 lbs..	.97	1.00	1.01	1.02	1.03	1.06	1.07	1.09	1.10	1.13	1.15	1.17	1.18	1.25	1.29	1.30	1.35	1.43	1.44	1.46	1.47
Package of 25 lbs..	1.14	1.18	1.20	1.21	1.22	1.25	1.26	1.29	1.31	1.34	1.37	1.39	1.40	1.50	1.54	1.55	1.62	1.72	1.73	1.76	1.77
Package of 30 lbs..	1.31	1.36	1.31	1.40	1.41	1.44	1.46	1.50	1.51	1.56	1.59	1.61	1.63	1.74	1.79	1.80	1.89	2.00	2.02	2.06	2.07
Package of 35 lbs..	1.48	1.54	1.56	1.58	1.61	1.64	1.66	1.69	1.72	1.77	1.81	1.84	1.85	1.99	2.05	2.07	2.16	2.30	2.31	2.35	2.38
Package of 40 lbs..	1.66	1.73	1.75	1.77	1.79	1.84	1.86	1.90	1.92	1.99	2.03	2.06	2.08	2.23	2.30	2.32	2.43	2.58	2.61	2.65	2.67
Package of 45 lbs..	1.84	1.90	1.94	1.96	1.98	2.03	2.06	2.10	2.13	2.20	2.25	2.28	2.30	2.47	2.55	2.57	2.69	2.87	2.89	2.95	2.97

Rate per 100 lbs........	$6.54	$6.65	$6.71	$7.04	$7.31	$7.37	$7.42	$7.64	$7.86	$8.03	$8.19	$8.69	$8.80	$8.96	$9.13	$9.62	$9.68	$9.90	$9.95	$10.39
CHARGES ON																				
Package of 1 lb........	.34	.34	.34	.34	.34	.34	.34	.35	.35	.35	.35	.36	.36	.36	.36	.36	.37	.37	.37	.37
Package of 2 lbs........	.40	.41	.41	.41	.42	.42	.42	.42	.43	.43	.43	.44	.44	.45	.45	.46	.46	.46	.47	.47
Package of 5 lbs........	.58	.59	.59	.62	.63	.63	.63	.64	.65	.66	.67	.69	.70	.70	.71	.74	.75	.76	.76	.78
Package of 10 lbs........	.90	.91	.91	.95	.98	.98	.99	1.01	1.03	1.04	1.07	1.11	1.12	1.14	1.15	1.21	1.21	1.23	1.24	1.29
Package of 15 lbs........	1.21	1.23	1.24	1.29	1.33	1.34	1.34	1.37	1.41	1.44	1.46	1.54	1.55	1.57	1.61	1.67	1.68	1.72	1.73	1.79
Package of 20 lbs........	1.53	1.55	1.56	1.63	1.68	1.69	1.70	1.75	1.79	1.83	1.86	1.96	1.98	2.01	2.05	2.14	2.16	2.20	2.21	2.30
Package of 25 lbs........	1.84	1.87	1.88	1.97	2.03	2.05	2.06	2.11	2.17	2.21	2.25	2.38	2.41	2.44	2.49	2.61	2.63	2.68	2.69	2.80
Package of 30 lbs........	2.16	2.19	2.20	2.30	2.39	2.40	2.42	2.49	2.55	2.60	2.65	2.79	2.83	2.88	2.93	3.08	3.09	3.16	3.18	3.31
Package of 35 lbs........	2.46	2.52	2.53	2.64	2.74	2.76	2.77	2.85	2.93	2.99	3.05	3.22	3.26	3.31	3.38	3.54	3.56	3.64	3.66	3.82
Package of 40 lbs........	2.78	2.83	2.85	2.98	3.09	3.11	3.13	3.22	3.31	3.38	3.44	3.64	3.68	3.75	3.82	4.01	4.04	4.12	4.15	4.32
Package of 45 lbs........	3.09	3.15	3.17	3.32	3.44	3.46	3.49	3.59	3.68	3.76	3.84	4.06	4.11	4.18	4.26	4.48	4.51	4.61	4.63	4.83

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Kindly notify us at once if you change your address. This will enable us to send your mail, orders and catalogs to the correct address.

When in Chicago remember our "latch string" is always out to you. You will find our Plant is as interesting as an expedition.

Charges for Packages Shipped by Parcel Post

Preceding page shows your zone from Chicago

Weight of Parcel	Local Zone	Zones 1 & 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8
Packages up to 4 ozs. in weight are carried at the rate of 1c an ounce, regardless of distance—packages weighing over 4 ozs. are charged for by the pound.	For Shipments Within Chicago	Not Over 150 Miles	151 to 300 Miles	301 to 600 Miles	601 to 1.000 Miles	1,001 to 1.400 Miles	1.401 to 1.800 Miles	Over 1.800 Miles
	Total Charges	Total Charges	Total Charges	Total Charges	Total Charges	Total Charges	Total Charges	Total Charges
Over 4 ozs. up to 1 lb.	$0.05	$0.05	$0.06	$.07	$0.08	$0.09	$0.11	$0.12
Over 1 lb. up to 2 lbs.	.06	.06	.08	.11	.14	.17	.21	.24
Over 2 lbs. up to 3 lbs.	.06	.07	.10	.15	.20	.25	.31	.36
Over 3 lbs. up to 4 lbs.	.07	.08	.12	.19	.26	.33	.41	.48
Over 4 lbs. up to 5 lbs.	.07	.09	.14	.23	.32	.41	.51	.60
Over 5 lbs. up to 6 lbs.	.08	.10	.16	.27	.38	.49	.61	.72
Over 6 lbs. up to 7 lbs.	.08	.11	.18	.31	.44	.57	.71	.84
Over 7 lbs. up to 8 lbs.	.09	.12	.20	.35	.50	.65	.81	.96
Over 8 lbs. up to 9 lbs.	.09	.13	.22	.39	.56	.73	.91	1.08
Over. 9 lbs. up to 10 lbs.	.10	.14	.24	.43	.62	.81	1.01	1.20
Over 10 lbs. up to 11 lbs.	.10	.15	.26	.47	.68	.89	1.11	1.32
Over 11 lbs. up to 12 lbs.	.11	.16	.28	.51	.74	.97	1.21	1.44
Over 12 lbs. up to 13 lbs.	.11	.17	.30	.55	.80	1.05	1.31	1.56
Over 13 lbs. up to 14 lbs.	.12	.18	.32	.59	.86	1.13	1.41	1.68
Over 14 lbs. up to 15 lbs.	.12	.19	.34	.63	.92	1.21	1.51	1.80
Over 15 lbs. up to 16 lbs.	.13	.20	.36	.67	.98	1.29	1.61	1.92
Over 16 lbs. up to 17 lbs.	.13	.21	.38	.71	1.04	1.37	1.71	2.04
Over 17 lbs. up to 18 lbs.	.14	.22	.40	.75	1.10	1.45	1.81	2.16
Over 18 lbs. up to 19 lbs.	.14	.23	.42	.79	1.16	1.53	1.91	2.28
Over 19 lbs. up to 20 lbs.	.15	.24	.44	.83	1.22	1.61	2.01	2.40
Over 20 lbs. up to 21 lbs.	.15	.25						
Over 21 lbs. up to 22 lbs.	.16	.26						
Over 22 lbs. up to 23 lbs.	.16	.27						
Over 23 lbs. up to 24 lbs.	.17	.28						
Over 24 lbs. up to 25 lbs.	.17	.29						
Over 25 lbs. up to 26 lbs.	.18	.30						
Over 26 lbs. up to 27 lbs.	.18	.31						
Over 27 lbs. up to 28 lbs.	.19	.32						
Over 28 lbs. up to 29 lbs.	.19	.33						
Over 29 lbs. up to 30 lbs.	.20	.34						
Over 30 lbs. up to 31 lbs.	.20	.35						
Over 31 lbs. up to 32 lbs.	.21	.36						
Over 32 lbs. up to 33 lbs.	.21	.37						
Over 33 lbs. up to 34 lbs.	.22	.38						
Over 34 lbs. up to 35 lbs.	.22	.39						
Over 35 lbs. up to 36 lbs.	.23	.40						
Over 36 lbs. up to 37 lbs.	.23	.41						
Over 37 lbs. up to 38 lbs.	.24	.42						
Over 38 lbs. up to 39 lbs.	.24	.43						
Over 39 lbs. up to 40 lbs.	.25	.44						
Over 40 lbs. up to 41 lbs.	.25	.45						
Over 41 lbs. up to 42 lbs.	.26	.46						
Over 42 lbs. up to 43 lbs.	.26	.47						
Over 43 lbs. up to 44 lbs.	.27	.48						
Over 44 lbs. up to 45 lbs.	.27	.49						
Over 45 lbs. up to 46 lbs.	.28	.50						
Over 46 lbs. up to 47 lbs.	.28	.51						
Over 47 lbs. up to 48 lbs.	.29	.52						
Over 48 lbs. up to 49 lbs.	.29	.53						
Over 49 lbs. up to 50 lbs.	.30	.54						

Postage
in stamps or a sufficient amount to cover delivery must accompany your order.

Merchandise
shipped by mail takes the Parcel Post rates as outlined in this table.

Packages
up to 4 ozs. are carried for 1c an ounce regardless of distance. If over 4 ozs. they are charged for by the pound.

Size Limit
If the combined length and girth measure of a package does not exceed 7 ft., it can be shipped by Parcel Post.

Insurance
protection on Parcel Post shipments can be had as follows:

3c insures a package up to $5.00
5c insures a package up to $25.00
10c insures a package up to $50.00
25c insures a package up to $100.00

Weight Limit
A package weighing up to 50 lbs. can be mailed in the first and second zones only. In other zones a package must not weigh over 20 lbs.

The Extent and Advantages of Parcel Post

What It Means To Mail Order Buyers Today

Parcel Post service offers a convenient, quick and efficient means of transporting mailable parcels to every post office in the United States, or its possessions. This service reaches more places than any other transportation agency. Consider the comparative speed of Parsel Post shipments and without disregard for the big economy in freight shipments, the Post Office offers a most economical delivery service. Reference to the table above shows the variation of charges according to the zone in which your post office is located. Parcel Post packages are handled with the same accuracy as any other mail matter. If you live in the city where your mail is delivered to your door, your Parcel Post shipments will come to your door. The rural mail carrier will deliver them to your mail box. If there is no mail carrier in your town, they are delivered to your nearest post office.

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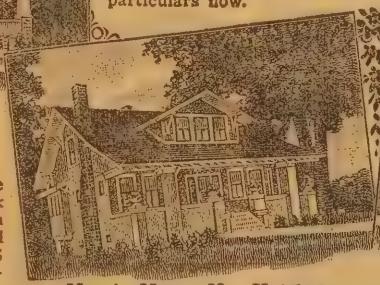

Harris Home No. X-1516

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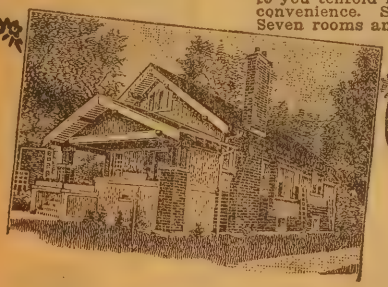
Harris Home No. X-1503

An impressive California type bungalow. Numerous features of good taste and comfort everywhere. Size 26 ft. x 40 ft. Five rooms, bath and space for three big bedrooms upstairs.

Harris Home No. X-1511

A charming type of bungalow with all the conveniences you could wish for. Note the broad, spacious porch covered by the main house roof. The plans in our Free Book show six good-sized rooms, bath and store room. Size 24 ft. x 36 ft.



Harris Home No. X-1028

One of the newest of the Harris Homes—through real architectural achievement. Excellent exterior and desirable interior. Size 25 ft. 6 in. x 36 ft. Five rooms, bath and big attic.

Harris Home No. X-2000

One of the many impressive two-story buildings in our new 1920 Free Book of Plans. Good to look at but better to live in. Size 28 ft. x 28 ft. Eight rooms and bath.

Harris Home No. X-1520

Nothing lacking in this modern bungalow type cottage. Still it can be built at a price you will be glad to pay. Size 24 ft. x 29 ft. 4 in. Seven rooms and bath. Get the Harris Free Book of Plans now.

Clear Douglas Fir Bungalow Doors

Vernon

Tacoma

Roslyn

These doors harmonize with any style of architecture and are highly desirable for front doors of bungalows, residences, and where something new, something out of the ordinary is wanted.

Made to Show the Beautiful Grain

Attractiveness, Durability and Simplicity are the three resplendent features of our "VERNON," "TACOMA" and "ROSLYN" Front Doors. Each and every door represents the latest achievement in the manufacture of Fir Doors.

We are the first to offer you High-Grade, 5-Ply, Cross-Banded, Flush Doors, made entirely of Clear Fir, a wood that is susceptible to any imitative treatment. They are of superior construction thruout, and are guaranteed not to warp or twist, providing ordinary care is used by you immediately upon receipt. The veneers are selected for Grain, great care being taken to match them perfectly in order to produce a beautiful door in every sense of the word. Fir is suitable for white paint finish, either for inside or outside use.

We can furnish inside doors to match these doors made of Clear Fir, in the same sizes and at the same prices as our Birch "Emerson" hardwood flush door shown elsewhere in this book.

SIZES			VERNON		TACOMA		ROSLYN	
Width	Height	Thickness.	10-X-1430 Glazed Clear Glass DS	10-X-1431 Glazed Beveled Plate Glass	10-X-1432 Glazed Clear Glass DS	10-X-1433 Glazed Beveled Plate Glass	10-X-1434 Glazed Clear Glass DS	10-X-1435 Glazed Beveled Plate Glass
2 ft. 8 in. x	6 ft. 8 in.	1¾	$17.68	$18.98	$16.65	$19.25	$16.40	$18.70
3 ft. 0 in. x	7 ft. 0 in.	Inches	19.10	20.75	18.20	20.65	17.80	20.10

Attractive Front Doors Priced Very Low

Here are three beautiful designs especially adapted for the bungalow home. Well made and as strong and substantial as any other high grade door on the market.

Douglas Fir is the most recent contender for public favor and is rightfully entitled to a place in the front ranks with oak, birch and other high priced woods.

The fir doors have laminated panels showing the beautifully figured grain with which highly satisfactory results are obtained in finishing. When finished, no one but an expert could distinguish them from the most expensive hardwood doors.

We absolutely guarantee that no better door, either for appearance or quality, can be had anywhere at the price.

Columbia

Douglas

Victoria

SIZES			COLUMBIA		DOUGLAS		VICTORIA	
Width Ft. In.	Height Ft. In.	Thickness	10-X-393 Glazed Clear D. S. A.	10-X-394 Glazed Beveled Plate	10-X-395 Glazed Clear D. S. A.	10-X-396 Glazed Beveled Plate	10-X-397 Glazed Clear D. S. A.	10-X-398 Glazed Beveled Plate
2- 8 x	6- 8.....	1⅜"	$ 9.41	$13.13	$12.47	$17.85	$10.85	$16.16
2- 8 x	7- 0.....	1¾"	12.42	16.65	15.76	21.94	13.71	19.94
3- 0 x	7- 0.....	1¾"	13.26	19.94	16.72	22.80	14.55	20.78

We list and carry in stock only three sizes of these Bungalow Doors but we can also furnish them in the following standard sizes: 2-10x6-8, 1¾" thick and 3-0x6-8, 1¾" thick. Price of either door same as 3-0x7-0 listed above.

Bungalow Doors With Individuality

Elegant Mission Style Front Doors

The popular demand for Craftsman and Mission Style of Architecture at the present time prompted us to design our Montesano, Salem and Aberdeen front doors.

These front doors are up to the minute in every way, being built along simple, yet elegant lines. They are made of Old Growth Soft Yellow Fir, with Solid Quarter-sawed Stiles and Rails and have beautifully figured, 3 ply, laminated Slash Grain Panels. They will take any stain or finish. At the extremely low prices that we are offering them you are getting a Hardwood Door value at a Pine price. They are truly beautiful doors when painted white.

You will find inside doors to match these front doors on one of the following pages.

Montesano

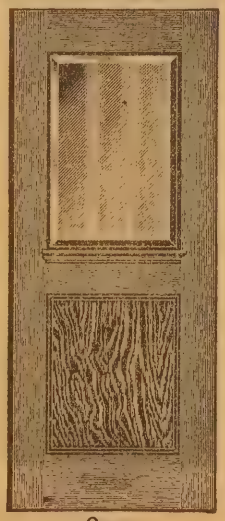
Salem

Aberdeen

SIZES			MONTESANO		SALEM		ABERDEEN	
Width	Height	Thickness	10-X-640 Glazed Clear Glass DS	10-X-641 Glazed Beveled Plate Glass	10-X-642 Glazed Clear Glass DS	10-X-643 Glazed Beveled Plate Glass	10-X-644 Glazed Clear Glass DS	10-X-645 Glazed Beveled Plate Glass
2 ft. 6 in.	x 6 ft. 6 in.	1⅜ inches	$ 7.31	$11.25	$ 9.63	$13.07	$ 8.52	$11.51
2 ft. 8 in.	x 6 ft. 8 in.		7.79	12.27	10.05	13.49	8.94	11.93
2 ft. 10 in.	x 6 ft. 8 in.		8.13	13.01	10.38	14.33	9.23	12.71
2 ft. 10 in.	x 6 ft. 10 in.		8.64	13.52	10.89	14.84	9.74	13.22
2 ft. 8 in.	x 7 ft. 0 in.		8.36	12.84	10.62	14.06	9.51	12.50
2 ft. 10 in.	x 7 ft. 0 in.		8.73	13.61	10.98	14.93	9.83	13.31
3 ft. 0 in.	x 7 ft. 0 in.		9.17	14.67	11.45	16.14	10.20	14.45
2 ft. 8 in.	x 6 ft. 8 in.	1¾ inches	9.84	14.33	12.11	15.54	11.00	13.98
2 ft. 10 in.	x 6 ft. 8 in.		10.28	15.15	12.53	16.47	11.37	14.85
3 ft. 0 in.	x 6 ft. 8 in.		10.70	16.20	12.98	17.67	11.73	15.98
2 ft. 10 in.	x 6 ft. 10 in.		10.80	15.75	13.13	17.07	11.97	15.45
2 ft. 8 in.	x 7 ft. 0 in.		10.53	15.02	12.80	16.23	11.69	14.67
2 ft. 10 in.	x 7 ft. 0 in.		11.01	15.89	13.26	17.21	12.11	15.59
3 ft. 0 in.	x 7 ft. 0 in.		11.49	17.00	13.77	18.47	12.53	16.77

Washington

Pacific



Oregon

Hardwood Values at Pine Prices

Before this Pacific Coast product was considered a desirable commodity for the finer grades of workmanship this firm strong Fir-wood had been successfully exploited for many other purposes. It is our pleasure to offer a share in our good fortune, since it is demonstrated that this choice soft grained wood is well suited to the finest kinds of interior work, principally Doors and interior Casings, Base, etc., and the supply is almost inexhaustible, vast acres of forests being as yet untouched to this day.

Practically all known hard woods can be successfully imitated with Fir, through the use of our various shades of stain and oils. For further particulars in regard to staining effects read page showing slash grain **Fir trim following.** All made **from firm first class Lumber, A-No. 1, strictly Clear stock.**

1⅜-inch Thick SIZES Width Ft. In.	Height Ft. In.	WASHINGTON 10-X-378 Glazed Clear Glass D.S.A.	WASHINGTON 10-X-379 Glazed Bevel Plate Glass	PACIFIC 10-X-390 Glazed Clear Glass D.S.A.	PACIFIC 10-X-391 Glazed Bevel Plate Glass	PACIFIC 10-X-392 Glazed Fancy Lace Design	OREGON 10-X-381 Glazed Clear Glass D.S.A.	OREGON 10-X-382 Glazed Bevel Plate Glass	OREGON 10-X-383 Glazed Fancy Lace Design
2- 6	x 6- 6	$ 8.09	$21.84	$13.52	$23.76	$15.77	$ 7.79	$17.12	$ 9.45
2- 8	x 6- 8	8.76	25.31	14.00	26.30	16.47	8.40	19.37	10.17
2-10	x 6-10	9.96	28.77	15.08	29.10	17.64	9.33	21.78	11.31
2- 8	x 7- 0	9.75	27.11	14.87	27.87	17.48	9.12	21.18	11.10
3- 0	x 7- 0	10.56	32.00	15.74	32.61	18.48	10.02	24.17	12.12

Artistic Modern Flush or Slab Doors

Tennyson

Bryant

Emerson

Ideal Sanitary Doors

Very few homes there are where the important feature of building equipment has not been neglected. These doors are really beautiful pieces of furniture, ready for the finishing touches.

The "Tennyson" should be used mainly as a front door. The "Bryant" makes a perfect match for the vestibule. The "Emerson" would naturally be used as an interior door exclusively.

Flush doors have a perfectly plain surface, hence the commercial term "Flush Door." They present a smooth surface—gather no dust or dirt—the ideal sanitary door.

The "Emerson" door claims exclusive title as the "Slab Door," so called because it portrays, to all appearance, nothing but a slab cut from a beautifully grained log, but revealing upon closer inspection the handicraft of master workmen, improving upon the work of nature.

The veneering process of our Flush Doors is different from other methods; much stronger than a solid paneled door. The regular veneered doors are made 3-ply, whereas the Flush Doors are made 5-ply, containing a double layer of veneer on both sides of the core, the inner layer running crosswise, the core itself being protected in double fashion, making it impossible for the door to shrink, crack or warp. Doors should be given a coat of "filler" immediately. DON'T STORE IN DAMP PLACE.

TENNYSON			BRYANT			EMERSON	
1¾ Inch Thick	Red Oak		1¾ Inch Thick	Red Oak		1¾ Inch Thick	Red Oak
SIZES Width Ft. In. Height Ft. In.	10-X-207 Glazed Clear D.S.A.	10-X-213 Glazed Bevel Plate	SIZES Width Ft. In. Height Ft. In.	10-X-226 Glazed Clear D.S.A.	10-X-227 Glazed Bevel Plate	SIZES Width Ft. In. Height Ft. In.	10-X-234
2-8 x 6-8.....	$24.26	$25.58	2-8 x 6-8.....	$23.61	$26.25	2-8 x 6-8.....	$18.90
3-0 x 7-0.....	27.45	29.78	3-0 x 7-0.....	26.85	31.50	3-0 x 7-0.....	22.05

Hardwood Front Doors

You'll find our Hardwood Veneered Doors to be of better than standard construction. The core or inside is interlocked with "Dovetailed" joints, impossible to come apart after they are once locked. The panels are 3 ply. The grain of the wood in the inner section runs in opposite direction to the outer layers.

The Mozart and Gladstone Doors make very neat and substantial front doors and are especially desirable where one does not want the full length glass effect and at the same time retain the benefit of plenty of light. The panel effect in both Mozart and Gladstone is somewhat unusual—different from the ordinary paneled front doors on account of the wide embossed moulding.

The Rembrandt Door is quoted with clear double strength "A" glass; clear Beveled Plate and with colored art. The color scheme combines an artist's selection of variegated Cathedral, Iridescent and Opalescent blending, making a beautiful door at a very reasonable price.

Veneered Red Oak and Northern Birch
1¾ Inch Thick

Mozart

Rembrandt

Gladstone

MOZART					REMBRANDT						GLADSTONE			
1¾ Inch Thick	Red Oak		Northern Birch		Red Oak			Northern Birch			Red Oak		Northern Birch	
SIZES Width Ft. In. Height Ft. In.	10-X-264 Glazed Clear D.S.A.	10-X-266 Glazed Bevel Plate	10-X-267 Glazed Clear D.S.A.	10-X-268 Glazed Bevel Plate	10-X-275 Glazed Colored Art	10-X-276 Glazed Clear D.S.A.	10-X-277 Glazed Bevel Plate	10-X-278 Glazed Colored Art	10-X-279 Glazed Clear D.S.A.	10-X-280 Glazed Bevel Plate	10-X-283 Glazed Clear D.S.A.	10-X-284 Glazed Bevel Plate	10-X-285 Glazed Clear D.S.A.	10-X-286 Glazed Bevel Plate
2- 8 x 6- 8..	$17.03	$28.07	$14.70	$25.74	$17.78	$13.41	$18.93	$15.90	$11.54	$17.06	$21.63	$29.28	$18.81	$26.46
2-10 x 6-10..	17.61	30.71	15.29	28.38	.....	.....	.....	.....	.....	.....	21.92	31.41	19.11	28.61
3- 0 x 7- 0..	18.06	32.58	15.74	30.26	22.43	16.31	24.24	20.55	14.43	22.37	22.49	33.54	19.70	30.75

Only sizes listed carried in stock—prices on other sizes on application.

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Interior Doors, Beautiful Modern Designs

Doors of Superior Quality

You'll find these "Rainier," "Everett" and "Alberta" doors unsurpassed in beauty and individuality in design. All of super-quality throughout.

You'll be able to use these doors to advantage particularly where either Colonial, Mission or Craftsman style of architecture is desired.

They can be finished in natural wood, stained any color, or in Colonial White, with perfect satisfaction. They are made to match front doors of similar designs shown on previous page.

These doors are of superior manufacture being made with the Solid Edge Grain Stiles and Rails, and with beautifully figured, Slash Grain, 3 ply, laminated Panels, guaranteed not to warp or twist.

Rainier

Everett

Alberta

SIZES Width	SIZES Height	RAINIER 10-X-1917 Thickness 1⅜ in.	RAINIER 10-X-1918 Thickness 1¾ in.	EVERETT 10-X-1919 Thickness 1⅜ in.	EVERETT 10-X-1920 Thickness 1¾ in.	ALBERTA 10-X-1921 Thickness 1⅜ in.	ALBERTA 10-X-1922 Thickness 1¾ in.
2 ft. 0 in.	x 6 ft. 0 in.	$5.58	....	$5.49	....	$5.84	....
2 ft. 0 in.	x 6 ft. 6 in.	5.87	....	5.76	....	6.14	....
2 ft. 4 in.	x 6 ft. 6 in.	6.48	....	6.38	....	6.78	....
2 ft. 6 in.	x 6 ft. 6 in.	6.81	....	6.69	....	7.13	....
2 ft. 0 in.	x 6 ft. 8 in.	5.96	....	5.87	....	6.24	....
2 ft. 4 in.	x 6 ft. 8 in.	6.62	....	6.51	....	6.93	....
2 ft. 6 in.	x 6 ft. 8 in.	6.90	....	6.80	....	7.23	....
2 ft. 8 in.	x 6 ft. 8 in.	7.23	$ 9.32	7.11	$ 9.17	7.58	$9.75
2 ft. 10 in.	x 6 ft. 10 in.	7.52	10.31	7.91	10.14	8.42	...
2 ft. 0 in.	x 7 ft. 0 in.	6.48	....	6.36	....	6.78	....
2 ft. 2 in.	x 7 ft. 0 in.	7.14	....	7.02	....	7.47	....
2 ft. 4 in.	x 7 ft. 0 in.	7.14	....	7.02	....	7.47	....
2 ft. 6 in.	x 7 ft. 0 in.	7.47	10.22	7.35	9.44	7.82	$10.05
2 ft. 8 in.	x 7 ft. 0 in.	7.80	10.02	7.68	9.86	8.18	10.50
2 ft. 10 in.	x 7 ft. 0 in.	8.13	10.44	8.00	10.28	8.52	10.94
3 ft. 0 in	x 7 ft. 0 in.	8.51	10.88	8.37	10.70	8.91	11.39

Olympia

Seattle

Portland

Clear Fir Panel Doors

These beautiful clear fir doors are made with straight grain stiles and rails, which are best for strength, and with slash grain panels, best for beauty, thus forming a rare combination of durability and style.

Straight grain resists all warping and twisting tendencies. Panels in the 1 and 2 panel doors being laminated or "built-up" prevents them from shrinkage and curling out of shape, because of the built-up process of three layers with the grain running in opposite directions which cannot help but keep them straight. Panels in the 5 cross panel doors are thick solid raised panels.

Reproductions on this page were taken after the doors were treated with Mahogany stain, bringing out the tiniest curls of the slash grain in the panels, blending gracefully with the soft tones of the straight wood stiles. All first quality, A-No. 1 Clear Stock.

OLYMPIA DOORS

SIZES Width Ft. In.	SIZES Height Ft. In.	No. 10-X-327 Thickness 1⅜"	No. 10-X-327 Thickness 1¾"
2- 0	x 6- 0	$4.61	....
2- 0	x 6- 6	4.83	....
2- 4	x 6- 6	5.36	....
2- 6	x 6- 6	5.61	....
2- 0	x 6- 8	4.92	....
2- 4	x 6- 8	5.46	....
2- 6	x 6- 8	5.70	....
2- 8	x 6- 8	5.97	$7.70
2-10	x 6-10	6.63	8.51
2- 0	x 7- 0	5.36	....
2- 4	x 7- 0	5.90	....
2- 6	x 7- 0	6.17	7.92
2- 8	x 7- 0	6.44	8.27
3- 0	x 7- 0	7.02	8.97

SEATTLE

No. 10-X-326 Thickness 1⅜"	No. 10-X-326 Thickness 1¾"
$4.43	....
4.65	....
5.15	....
5.40	....
4.73	....
5.25	....
5.48	....
5.75	$7.40
6.38	8.18
5.15	....
5.67	....
5.93	7.62
6.20	7.95
6.75	8.63

PORTLAND DOORS RAISED PANELS

SIZES Width Ft. In.	SIZES Height Ft. In.	No. 10-X-325 Thickness 1⅜"	No. 10-X-325 Thickness 1¾"
2- 0	x 6- 0	$4.25	....
2- 4	x 6- 0	4.94	....
2- 6	x 6- 0	4.94	....
2- 4	x 6- 4	4.94	....
2- 0	x 6- 6	4.47	....
2- 2	x 6- 6	4.94	....
2- 4	x 6- 6	4.94	....
2- 6	x 6- 6	5.19	....
2- 0	x 6- 8	4.53	....
2- 4	x 6- 8	5.04	....
2- 6	x 6- 8	5.24	....
2- 8	x 6- 8	5.52	$7.10
2-10	x 6- 8	5.73	7.40

SIZES Width Ft. In.	SIZES Height Ft. In.	No. 10-X-325—Contd. Thickness 1⅜"	No. 10-X-325—Contd. Thickness 1¾"
2- 6	x 6-10	$5.61	....
2 -8	x 6-10	5.88	....
2-10	x 6-10	6.12	$7.85
2- 0	x 7- 0	4.94	....
2- 2	x 7- 0	5.45	....
2- 4	x 7- 0	5.45	....
2- 6	x 7- 0	5.69	7.32
2- 8	x 7- 0	5.96	7.64
2-10	x 7- 0	6.20	7.97
3- 0	x 7- 0	6.48	8.28

Beautiful Designs, Hardwood Front Doors

American Beauty

Shakespeare

Morning Glory

These Beautiful Doors Reflect Good Taste

The illustrations of Hardwood Front Doors shown on this page are as near like the original product as pictures can make them. Regular flat sawed veneers could not produce the flaky, curly grain. The improved rotary cut process makes the ordinary Birch resemble very closely the higher priced curly birch. In Oak Doors, most people would prefer this method of veneering to the finest quarter-sawed oak. But this is not the only modern improvement which distinguishes our doors from the common variety. They are different. That's it, built better. While this important feature makes our doors more valuable than the usual rotary veneered doors, our prices are actually on par and even lower than others can be bought for. For this reason we do not depend upon descriptive wording to sell our doors, but our ability to undersell is only another illustration of this company's progressiveness, for no other concern in the world would dare to offer doors of this character at such low figures.

Veneered Red Oak and Northern Birch
1¾ Inch Thick

1¾ Inch Thick	AMERICAN BEAUTY				SHAKESPEARE				MORNING GLORY			
	Red Oak		Northern Birch		Red Oak		Northern Birch		Red Oak		Northern Birch	
SIZES Width Ft. In. Height Ft. In.	No. 10-X-1 Glazed Clear D.S.A.	No. 10-X-3 Glazed Beveled Plate	No. 10-X-251 Glazed Clear D.S.A.	No. 10-X-253 Glazed Beveled Plate	No. 10-X-217 Glazed Clear D.S.A.	No. 10-X-218 Glazed Beveled Plate	No. 10-X-219 Glazed Clear D.S.A.	No. 10-X-220 Glazed Beveled Plate	No. 10-X-4 Glazed Clear D.S.A.	No. 10-X-6 Glazed Beveled Plate	No. 10-X-263 Glazed Clear D.S.A.	No. 10-X-265 Glazed Beveled Plate
2- 8 x 6- 8	$16.31	$30.77	$14.43	$28.89	$19.74	$34.70	$16.92	$31.88	$22.85	$33.35	$19.10	$29.60
2-10 x 6-10	16.40	33.99	14.52	32.12	19.98	35.58	17.13	32.67	23.60	35.72	19.85	31.97
2- 8 x 7- 0	16.68	32.94	14.79	31.05	20.42	36.89	17.64	34.11	23.52	34.92	19.77	31.17
2-10 x 7- 0	17.16	34.50	15.27	32.61	20.61	37.08	17.79	34.26	23.75	36.47	20.00	32.72
3- 0 x 7- 0	17.19	36.77	15.32	34.84	20.91	38.55	18.06	35.73	24.06	38.52	20.31	34.77

Only sizes listed are carried in stock. Prices on other sizes quoted upon application.

Incomparable in Quality

"Quality and Style" is expressive of our Hardwood Doors, plus harmony, as shown in these Doors.

Read on previous pages how well all our Hardwood Veneer Doors are built. None more lasting.

To those preferring a medium size glass effect for a front door, our Wagner design satisfies this preference.

The Milton Door, used for the vestibule or side entrance, matches the Wagner front door to good effect.

The Rubens, a door of Mission type, like all our Veneered Hardwood Doors represents the very best of modern door making. These doors are as carefully made as a fine piece of furniture, interlocking dove-tail cores, specially selected woods, smooth sanded finish and guaranteed not to warp or twist if ordinary care is used.

Your attention is directed to the large built-up 3 ply panels in both the Milton and Wagner doors and also to the heavy aprons, caps and the beautifully carved wreaths.

Veneered Oak or Northern Birch
1¾ Inch Thick

Milton

Rubens

Wagner

1¾ Inch Thick	PRICES OF MILTON				1¾ Inch Thick	PRICES OF RUBENS				PRICES OF WAGNER		
	Red Oak		Northern Birch			Red Oak		Northern Birch		1¾ Inch Thick	Red Oak	
SIZES Width Ft. In. Height Ft. In.	10-X-252 Glazed Clear D.S.A.	10-X-254 Glazed Bevel Plate	10-X-256 Glazed Clear D.S.A.	10-X-258 Glazed Bevel Plate	SIZES Width Ft. In. Height Ft. In.	10-X-240 Glazed Clear D.S.A.	10-X 241 Glazed Bevel Plate	10-X-242 Glazed D.S.A.	10-X-243 Glazed Bevel Plate	SIZES Width Ft. In. Height Ft. In.	10-X-260 Glazed Clear D.S.A.	10-X-262 Glazed Bevel Plate
2- 8 x 6- 8	$13.58	$19.08	$11.70	$17.21	2- 8 x 6- 8	$17.37	$22.83	$15.51	$21.03	2- 8 x 6- 8	$14.76	$22.98
2-10 x 6-10	15.48	22.04	13.76	20.16	3- 0 x 7- 0	17.84	23.36	15.96	21.48	2-10 x 6-10	15.57	25.85
2- 8 x 7- 0	16.21	21.71	14.33	19.83						3- 0 x 7- 0	16.05	27.75
3- 0 x 7- 0	16.46	24.39	14.58	22.52								

Only sizes listed carried in stock. Prices on other sizes upon application.

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago

Superior Quality Hardwood Panel Doors

Modern Interior Doors should harmonize with the exterior, especially with the front door. A perfect match can be made by the wide variety we offer.

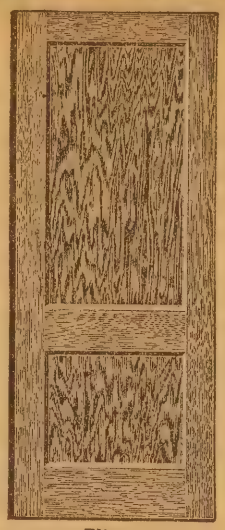
The panels are laminated, that is, built up from several layers of veneer and core, the grain of the cores running in opposite directions. Thus one layer counteracts the working of the other layer next to it and the result is a continuous, non-warping panel.

The highest grade of workmanship goes into our Hardwood Doors. They are as beautifully flaked and figured as the front doors, therefore, will permit the finishing in the natural wood. Can be stained to imitate mahogany and other high priced woods.

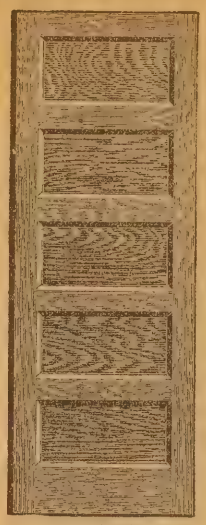
The Birch Doors being naturally very close grained, will take the finest eggshell and white enamel finish.

Guaranteed Interlocking Core Construction

In Veneered Red Oak and Northern Birch



Elite



Roseland

Kenwood

Be Sure to State Thickness	ELITE				ROSELAND				KENWOOD	
	Red Oak No. 10-X-9		Northern Birch No. 10-X-10		Red Oak No. 10-X-7		Northern Birch No. 10-X-8		Red Oak No. 10-X-335	Northern Birch No. 10-X-336
SIZES Width Height Ft. In. Ft. In.	1⅜-inch thick	1¾-inch thick	1⅜-inch thick	1¾-inch thick	1⅜-inch thick	1¾-inch thick	1⅜-inch thick	1¾-inch thick	1¾-inch thick	1¾-inch thick
2- 0 x 6- 0	$ 8.78	....	$ 7.98	....	$ 8.24	....	$ 7.98	....	$10.19	$ 9.41
2- 0 x 6- 6	9.17	....	8.37	....	8.64	....	8.34	....	10.59	9.77
2- 4 x 6- 6	10.05	....	9.18	....	9.53	....	9.18	....	11.48	10.61
2- 6 x 6- 6	10.52	....	9.63	....	9.99	....	9.63	....	11.94	11.06
2- 0 x 6- 8	9.30	....	8.49	....	8.78	....	8.49	....	10.73	9.92
2- 2 x 6- 8	10.10	....	....	....	....	....	....	....	11.67	10.80
2- 4 x 6- 8	10.10	....	9.38	....	9.72	....	9.38	....	11.67	10.80
2- 6 x 6- 8	10.65	$11.25	9.75	....	10.13	....	9.75	....	12.08	11.18
2- 8 x 6- 8	11.13	11.73	10.19	$10.79	10.61	$10.71	10.19	$10.19	12.51	11.61
2-10 x 6-10	12.27	12.87	11.27	11.87	11.75	12.35	11.27	11.27	13.70	12.69
2- 0 x 7- 0	10.05	....	....	....	9.53	....	9.18	....	11.48	10.61
2- 2 x 7- 0	11.00	....	10.07	....	10.47	....	10.07	....	12.42	11.49
2- 4 x 7- 0	11.00	....	10.07	....	10.49	....	10.07	....	12.42	11.49
2- 6 x 7- 0	11.46	12.06	10.50	11.10	10.94	11.54	10.50	10.50	12.89	11.93
2- 8 x 7- 0	11.93	12.54	10.95	11.55	11.42	12.02	10.95	10.91	13.35	12.38
2-10 x 7- 0	12.41	13.01	11.39	11.99	11.88	12.48	11.39	11.39	13.83	12.81
3- 0 x 7- 0	12.95	13.55	11.90	12.50	12.42	13.02	11.90	11.90	14.37	13.32

LONGWOOD

Orange Blossom

Magnolia

High Grade Pine Front Doors

Our line of Soft Pine Front Doors cannot be equalled for durability and wearing qualities. Weather defying in the greatest possible measure, you cannot possibly get greater money measure. Of solid, substantial construction, they resist the element's powers of destruction.

You want a door that is strictly first-class, a door that not only will class first at the start in the highest rank, but a door that will be in the race to the last, a door on which you can "bank." You have the pictures of such doors before you, actual photographs.

You cannot make a mistake, whatever your choice—you will choose a good door—at a low price.

Clear and Clean—First Quality Soft Pine

Suitable for Oil Finish

Size Width Height Ft. In. Ft. In	Thickness	LONGWOOD 10-X-Glazed D. S. A.	LONGWOOD 10-X-Glazed Bevel Plate	1⅜-Inch Thick SIZES Width Height Ft. In. Ft. In.	ORANGE BLOSSOM 10-X-13 Glazed Clear D.S.A.	ORANGE BLOSSOM 10-X-14 Glazed Beveled Plate	MAGNOLIA 10-X-238 Glazed Lace as shown	MAGNOLIA 10-X-232 Glazed Clear D.S.A.	MAGNOLIA 10-X-233 Glazed Beveled Plate
2-8 x 6-8	1¾ inches	$15.42	$21.33	2- 8 x 6- 8	$11.65	$23.55	$12.49	$ 9.21	$21.30
3-0 x 7-0	1¾ inches	16.26	23.24	2-10 x 6-10	12.52	27.14	13.05	9.77	24.11
				2- 8 x 7- 0	12.36	25.88	12.88	9.60	23.31
				3- 0 x 7- 0	13.27	30.32	14.05	10.55	26.81

For Orange Blossom and Magnolia doors 1¾ inches thick add $1.40 extra.

Exceptional Values for Home-Builders

Laurel

Violet

We have made it a point to show a large variety of Front Door designs so that there may be freedom of choice in addition to relief from high prices and buyers will have so many styles from which to choose that no difficulty will be experienced in picking out one or more suitable designs.

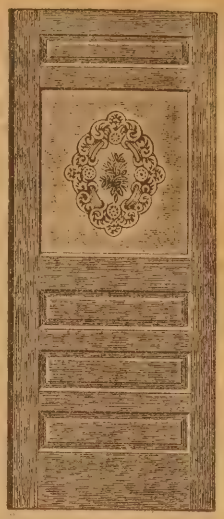
Our "Mignonette" is a plain, cross-paneled door with an almost square light of glass.

Our "Laurel" door is an unusual value, glazed with long oval glass, combination scenic and lace effect. A heavy, raised panel surrounds it. This is strictly a door of merit and, at our price, a great bargain.

The "Tulip" and "Violet" designs are quite plain and free from ornamentation. This is where real character tells. Our plainest doors are so perfectly constructed and accurately proportioned that the high quality is readily apparent.

These doors will take any kind of finish—oil, paint or enamel.

For Any of These Doors 1¾ Inch Thick Add $1.25.



Mignonette

Tulip

LAUREL		VIOLET		1⅜-Inch Thick SIZES	MIGNONETTE		TULIP	
10-X-347 Glazed Lace Design as shown	10-X-348 Glazed Clear D.S.A.	10-X-36 Glazed Clear D.S.A.	10-X-37 Glazed Flower design as shown	Width Ft. In. x Height Ft. In.	10-X-32 Glazed Clear D.S.A.	10-X-33 Glazed Lace design as shown	10-X-40 Glazed Clear D.S.A.	10-X-388 Glazed Chipped or Frosted Glass
$11.28	$9.11	$6.41	$8.06	2- 6 x 6- 6	$5.98	$7.47	$6.53	$6.60
12.11	9.75	6.83	8.52	2- 8 x 6- 8	6.44	7.94	6.95	7.08
13.19	10.62	7.65	9.48	2-10 x 6-10	7.17	8.75	7.74	7.85
13.02	10.46	....	....	2- 8 x 7- 0	6.83	8.33	7.58	7.65
14.16	11.37	8.30	10.28	3- 0 x 7- 0	7.59	9.24	8.30	8.43

Colonial and French Doors in Clear Soft Pine

These Virginia, Carolina and Maryland Colonial and French Doors represent something of the very latest in the way of French, Balcony and Vestibule Doors. You'll also find them very desirable for sun parlors and sleeping porches, and where plenty of light is wanted.

These doors are made of beautiful California White Pine, being well manufactured in every respect. The bars are extra heavy and are mortised into the stiles and rails, making them exceptionally strong and preventing them from twisting and sagging. The stiles and top rails are low priced doors made with flimsy bars.

Can be finished natural, stained or painted white for either in or outside use.

Do not confuse our doors with other brands of 5 inches wide while the bottom rail is 11 inches wide. The glass is set with glass beads and not glazed with putty.

Virginia

Carolina

Maryland

Sizes	Thickness	VIRGINIA 10-X-1150 Glazed D. S. A.	VIRGINIA 10-X-1151 Gl. Bev. Plate	CAROLINA 10-X-1152 Glazed D. S. A.	CAROLINA 10-X-1153 Gl. Beveled Plate	MARYLAND 10-X-1154 Glazed D. S. A.	MARYLAND 10-X-1155 Gl. Beveled Plate
2-8 x 6-8.....	1¾ inches	$11.67	$27.98	$11.87	$26.94	$12.18	$25.37
3-0 x 7-0.....		13.28	32.00	13.10	31.88	13.55	31.52
2-8 x 6-8.....	1¾ inches	13.32	29.63	13.52	28.59	13.83	27.02
3-0 x 7-0.....		15.15	33.87	14.97	33.75	15.42	33.39

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Wonderful Values in Durable Front Doors

Golden Glow

Honey Suckle

First Quality Clear Soft Pine

A quartet of door values not to be excelled in quality and impossible to match in price.

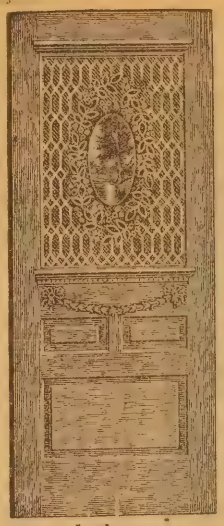
"Golden Glow" with clear glass, or glazed beveled plate as illustrated, is a decorative addition to any residence.

The "Honeysuckle" door is a plain design, well built to support the full length glass.

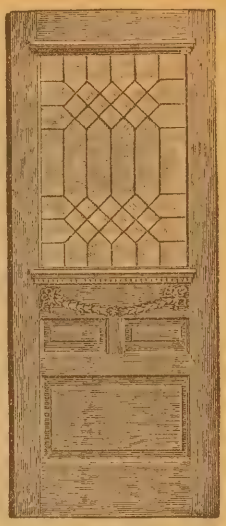
"Larkspur" door is more decorative, having a strand of carving under the glass and a neat panel arrangement.

Look at the picture of our "Radiance" door and consider the remarkable bargain we offer. A very pretty design glazed with the very latest pattern of leaded crystal as shown in the illustration. Will take any kind of finish—oil, paint or enamel.

Note: For any door on this page 1¾ inch thick add $1.40



Larkspur

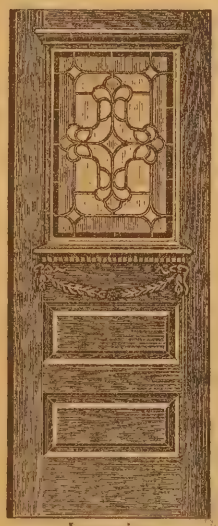


Radiance

1¾ Inches Thick	GOLDEN GLOW		HONEYSUCKLE		LARKSPUR		RADIANCE	
SIZES Width Height Ft. In. Ft. In.	10-X-333 Glazed Clear D.S.A.	10-X-334 Glazed Beveled Plate	10-X-15 Glazed Clear D.S.A.	10-X-16 Glazed Beveled Plate	10-X-373 Glazed Lace Design as shown	10-X-374 Glazed Clear D.S.A.	10-X-317 Glazed Leaded Crystal	10-X-319 Glazed Leaded Bev. Plate
2- 6 x 6- 6	$6.26	....	....	....	....	....	....	....
2- 8 x 6- 8	6.71	$14.58	$7.67	$24.20	$10.02	$8.33	$11.93	$17.43
2- 10 x 6-10	7.50	17.13	8.70	27.51	10.95	9.17	13.16	19.46
2- 8 x 7- 0	7.22	16.44	8.54	25.89	....	....	....	....
3- 0 x 7- 0	7.98	19.04	9.23	30.66	11.75	9.80	14.31	21.60

Handsome, Clear, Clean Soft Pine Doors

Goldenrod



Jessamine

Colonial

"The Popular Favorites"

If there is any single thing about a house from which it is customary to judge its occupants, that one thing is the front door.

All of our front doors are solidly built of carefully selected and thoroughly seasoned lumber, with mortised and tenoned joints, strongly glued, and as perfectly made as is possible with the aid of expert mechanics and the latest improved door-making machinery.

Here we show three beautiful doors, any one of which is bound to make a favorable impression upon the visitor to your home. We furnish these doors glazed in the handsome lace and leaded art glass designs as illustrated, or in clear glass—either "A" quality D. S. or Beveled Plate.

1¾-Inch Thick	GOLDENROD			JESSAMINE		
SIZES Width Height Ft. In. Ft. In.	10-X-18 Glazed Lace as shown	10-X-17 Glazed Clear D.S.A.	10-X-19 Glazed Beveled Plate	10-X-330 Glazd. Leaded Colored Art as shown	10-X-331 Glazed Clear D.S.A.	10-X-332 Glazed Beveled Plate
2- 8 x 6- 8.....	$12.57	$10.58	$19.10	$13.80	$8.45	$18.38
2-10 x 6-10.....	13.44	11.33	21.69	15.41	9.24	20.63
2- 8 x 7- 0.....	13.28	11.09	20.96	....	....	....
3- 0 x 7- 0.....	14.33	12.05	24.14	16.79	9.80	22.62

COLONIAL

Colonial doors are becoming more popular every day. They have been in use a long time and will continue to be used for their permanent beauty.

Width Height Ft. In. Ft. In.	Thickness	10-X-324
2-8 x 6-8.....	1¾ In.	$8.44
3-0 x 7-0.....	1¾ In.	9.74

We can furnish the Goldenrod or Jessamine door, 1¾ inches thick, $1.40 extra.

Clear White Pine Panel Doors of Quality

"A" Grade or "B" Grade—Better Than the Best

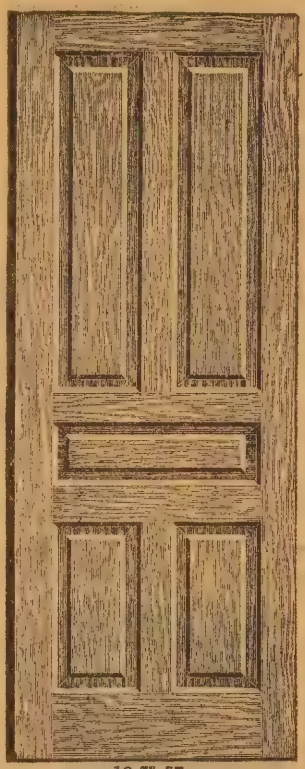
All of our panel doors are made by the same process, with extra strong joints, mortised and tenoned. By the term "A" Quality, we mean the best of clear, selected stock of the highest grade, suitable for any style of finish.

10-X-56
Four Panel

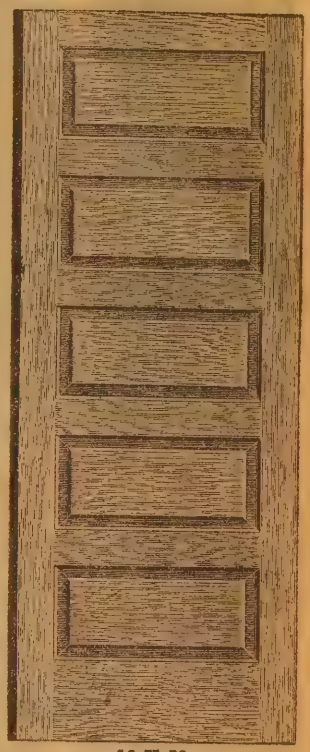
We get our "B" Quality doors by a careful regrading of our "A" doors, as we occasionally sort out some which are not quite up to standard. Thus our "B" doors run much better than the ordinary "B" grade. We do not recommend our "B" doors for Oil Finish but they are entirely suitable for paint, stain or enamel finish.

Mammoth Stocks

Superior Finish



10-X-57
Five Panel



10-X-59
Five Cross Panel

Four Panel Doors
White Pine
10-X-56

SIZES Ft.In. Ft.In.	Thick, In.	"A" Quality	"B" Quality
2- 0 x 6- 0..	1⅛	$3.71	$3.53
2- 6 x 6- 6..	1⅛	4.47	4.27
2- 8 x 6- 8..	1⅛	4.78	4.54
3- 0 x 7- 0..	1⅛	5.71	5.34
2- 0 x 6- 0..	1⅜	4.00	3.87
2- 6 x 6- 0..	1⅜	4.75	....
2- 8 x 6- 0..	1⅜	4.97	....
2- 4 x 6- 4..	1⅜	4.75	....
2- 0 x 6- 6..	1⅜	4.31	4.10
2- 2 x 6- 6..	1⅜	4.75	4.50
2- 4 x 6- 6..	1⅜	4.75	4.50
2- 6 x 6- 6..	1⅜	5.00	4.75
2- 0 x 6- 8..	1⅜	4.37	4.16
2- 2 x 6- 8..	1⅜	4.85	4.62
2- 4 x 6- 8..	1⅜	4.85	4.62
2- 6 x 6- 8..	1⅜	5.06	4.82
2- 8 x 6- 8..	1⅜	5.31	5.03
2-10 x 6-10..	1⅜	5.89	5.61
2- 0 x 7- 0..	1⅜	4.75	4.50
2- 2 x 7- 0..	1⅜	5.23	4.97
2- 4 x 7- 0..	1⅜	5.23	4.97
2- 6 x 7- 0..	1⅜	5.48	5.20
2- 8 x 7- 0..	1⅜	5.72	5.44
2-10 x 7- 0..	1⅜	5.95	....
3- 0 x 7- 0..	1⅜	6.23	5.92
2- 8 x 6- 8..	1¾	6.83	6.48
2-10 x 6-10..	1¾	7.56	7.17
2- 6 x 7- 0..	1¾	7.11	....
2- 8 x 7- 0..	1¾	7.34	....
2-10 x 7- 0..	1¾	7.64	....
3- 0 x 7- 0..	1¾	7.97	7.59

Five Panel Doors
White Pine
10-X-57

SIZES Ft.In. Ft.In.	Thickness In.	"A" Quality	"B" Quality
2- 0 x 6- 0..	1⅜	$4.02	$3.89
2- 0 x 6- 6..	1⅜	4.33	....
2- 2 x 6- 6..	1⅜	4.77	....
2- 4 x 6- 6..	1⅜	4.77	4.52
2- 6 x 6- 6..	1⅜	5.02	4.77
2- 0 x 6- 8..	1⅜	4.39	4.18
2- 2 x 6- 8..	1⅜	4.87	....
2- 4 x 6- 8..	1⅜	4.87	4.64
2- 6 x 6- 8..	1⅜	5.08	4.84
2- 8 x 6- 8..	1⅜	5.33	5.05
2-10 x 6-10..	1⅜	5.91	5.63
2- 0 x 7- 0..	1⅜	4.77	....
2- 2 x 7- 0..	1⅜	5.25	....
2- 4 x 7- 0..	1⅜	5.25	....
2- 6 x 7- 0..	1⅜	5.50	5.22
2- 8 x 7- 0..	1⅜	5.74	5.46
2-10 x 7- 0..	1⅜	5.97	5.68
3- 0 x 7- 0..	1⅜	6.25	5.94
2- 8 x 6- 8..	1¾	6.85	....
2-10 x 6-10..	1¾	7.58	....
2- 6 x 7- 0..	1¾	7.13	....
2- 8 x 7- 0..	1¾	7.36	....
2-10 x 7- 0..	1¾	7.66	....
3- 0 x 7- 0..	1¾	7.99	....

Five Cross Panel Doors
White Pine
10-X-59

SIZES Width Ft. In. Weight Ft. In.	Thickness In.	"A" Quality	"B" Quality
2- 0 x 6- 0....	1⅜	$4.04	$3.91
2- 0 x 6- 6....	1⅜	4.35	....
2- 6 x 6- 6....	1⅜	5.04	4.79
2- 0 x 6- 8....	1⅜	4.41	....
2- 4 x 6- 8....	1⅜	4.89	4.66
2- 6 x 6- 8....	1⅜	5.10	4.86
2- 8 x 6- 8....	1⅜	5.35	5.07
2-10 x 6-10....	1⅜	5.93	5.65
2- 0 x 7- 0....	1⅜	4.79	....
2- 4 x 7- 0....	1⅜	5.23	....
2- 6 x 7- 0....	1⅜	5.52	5.24
2- 8 x 7- 0....	1⅜	5.76	5.48
3- 0 x 7- 0....	1⅜	6.27	5.96

SIZES Width Ft. In. Height Ft. In.	Thickness Inches	"A" Quality
2- 8 x 6- 8.....	1¾	$6.87
2-10 x 6-10.....	1¾	7.60
2- 6 x 7- 0.....	1¾	7.15
2- 8 x 7- 0.....	1¾	7.38
3- 0 x 7- 0.....	1¾	8.01

NOTE—In ordering Doors be sure and specify Kind, Style, Thickness, Grade, how many panels and Catalog number.

Bevel or Plain Full Length Mirror Doors

Full length Mirror Doors can no longer be considered a luxury since we are offering them at a price so reasonable that practically the humblest citizen can afford its conveniences. While primarily an article of feminine utility, the men folks will recognize and appreciate its advantages over a short mirror and will not begrudge its low cost, since it combines the useful purpose of both door and wall mirror at a lower price and reduces danger of breakage.

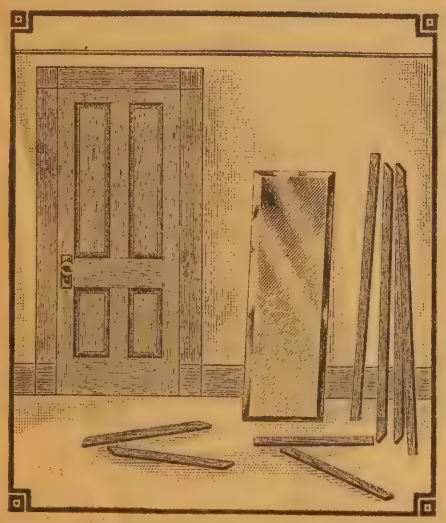
You probably have never looked at the matter in this light, so if your means do not permit the purchase of a console by all means secure the same actual service in our Mirror Door. You have plenty of choice as to sizes, three kinds of wood, two thicknesses and both plain and Beveled Plate Mirror. Naturally you will want your mirror door in your dressing room and as a closet door it will serve the double purpose admirably.

Our mirrors are of the regular standard American Beauty grade—noted for their high luster and lasting qualities. The mirror side of the door is finished as shown in the picture. The other side is regularly finished, two panel, like our "Elite and Seattle" door. Can also be furnished with two or five cross panels. Our Mirror Doors are packed so well that they cannot be marred in transit under ordinary handling conditions.

1⅜-inch Thick SIZES Width Ft. In. Height Ft. In.	Size of Mirror	PRICES OF "FULLVIEW" MIRROR DOOR — Red Oak 10X289 Plain Plate Mirror	Red Oak 10X290 Bevel Plate Mirror	Northern Birch 10X291 Plain Plate Mirror	Northern Birch 10X292 Bevel Plate Mirror	Fir 10X293 Plain Plate Mirror	Fir 10X294 Bevel Plate Mirror
2'-0" x 6'-6"	14" x 60"	$26.52	$29.36	$25.73	$28.56	$22.11	$24.84
2'-2" x 6'-6"	16" x 60"	28.31	32.61	28.94	31.74	24.90	27.71
2'-4" x 6'-6"	18" x 60"	31.98	34.82	31.11	33.95	27.08	29.91
2'-6" x 6'-6"	20" x 60"	34.64	37.47	33.75	36.59	29.52	32.36
2'-0" x 6'-8"	14" x 62"	27.15	30.08	26.34	29.27	22.58	25.50
2'-2" x 6'-8"	16" x 62"	30.39	33.35	29.67	32.63	25.55	28.50
2'-4" x 6'-8"	18" x 62"	32.64	35.58	31.92	34.86	27.80	30.74
2'-6" x 6'-8"	20" x 62"	35.31	38.40	34.56	37.50	30.29	33.23
2'-0" x 7'-0"	14" x 66"	28.82	31.94	28.83	31.95	23.91	27.03
2'-2" x 7'-0"	16" x 66"	32.39	35.51	31.46	34.58	27.06	30.18
2'-4" x 7'-0"	18" x 66"	34.77	37.89	33.84	36.96	29.45	32.57
2'-6" x 7'-0"	20" x 66"	37.61	40.73	36.65	39.77	32.07	35.19
2'-8" x 7'-0"	22" x 66"	42.92	47.69	41.94	46.40	37.19	41.34

Any of the above sizes furnished 1¾-inch thick, $1.25 extra. Write for prices on other woods.

It's Easy to Make Any Door a Mirror Door

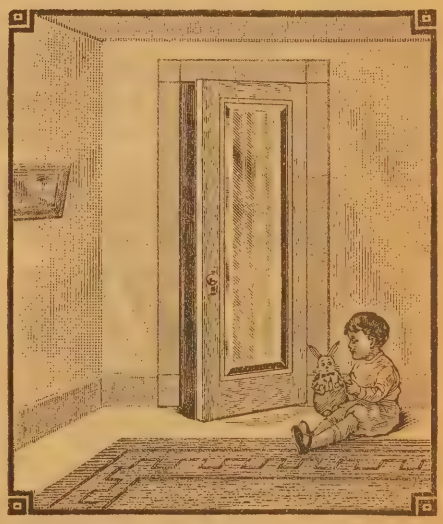


COMPLETE OUTFIT for a home-made mirror door consists of heavy plate mirror; thin strips to form a bed between the face of the door and the glass; mouldings of special design to frame the mirror and hold it firmly in place; and a sufficient number of round-headed brass screws.

Prices, Mirror Door Outfit No. 10X500

Size of Mirror	Plain Plate	Bevel'd 1½-in.	Fits Common Panel Door
16" x 60"	$17.31	$19.98	2'-0" x 6'-0"
16" x 66"	19.17	22.13	2'-0" x 6'-6"
20" x 66"	23.69	26.63	2'-4" x 6'-6"
22" x 66"	28.22	32.13	2'-6" x 6'-6"
16" x 68"	19.80	22.74	2'-0" x 6'-8"
20" x 68"	24.35	27.35	2'-4" x 6'-8"
22" x 68"	29.03	33.05	2'-6" x 6'-8"
24" x 68"	31.55	35.57	2'-8" x 6'-8"
16" x 72"	20.81	24.00	2'-0" x 7'-0"
20" x 72"	25.71	28.91	2'-4" x 7'-0"
22" x 72"	30.68	34.88	2'-6" x 7'-0"
24" x 72"	33.35	37.61	2'-8" x 7'-0"

Order by No. 10X500



How to Order: Take the measurement of your door just outside of the panel part, allowing at least one-half inch all around for the mirror to rest upon. Then select your size from the accompanying table. In ordering, be sure and specify whether plain or beveled plate mirror is desired and state your preference in mouldings—Yellow Pine, Oak or Birch (if no preference is given, Yellow Pine will be furnished).

The Mirror Mouldings, Strips and Screws will come in one box, carefully wrapped and packed to insure against damage in shipment.

Instructions: Any door of the ordinary kind can be made into a mirror door in a jiffy and you can do the work yourself. **First:** Take the door off the hinges and lay it flat on the floor or on trestles. **Second:** Place the thin strips evenly on the face of the door and lay the mirror on top. **Third:** Screw the mouldings into place. (The mouldings are already fitted and mitred.) Presto: A real mirror door, just as good for all practical purposes as if you had bought a new one. (Note:—The outer edges of the moulding and strips used for backing should be exactly even to obtain the best results.)

Sliding Doors and Inside Frames

10-X-440

DOUBLE SLIDING DOORS

Illustrations show Double Sliding Doors. These doors, like all our other stock doors, are of superior manufacture. The 5 X Panel Doors are made of strictly clear California white pine throughout and the 2 Panel Doors shown to the right are made of Fir with selected edge grain stiles and rails and beautifully figured slash grain 3 ply laminated panels, guaranteed not to warp or twist. We absolutely guarantee that no better doors, either in appearance or quality, can be had anywhere at the prices.

PRICES FOR DOUBLE SLIDING DOORS

Sizes Width Hght. Ft.In. Ft.In.	Thickness in Inches	5 X Panel 10-X-440	2 Panel 10-X-441
4-0 x 6-8.	1⅜"	....	$9.46
5-0 x 6-8.	1⅜"	....	10.96
5-4 x 6-8.	1⅜"	....	11.50
4-0 x 7-0.	1⅜"	....	10.30
5-0 x 7-0.	1⅜"	....	11.86
5-4 x 7-0.	1⅜"	....	12.40
6-0 x 7-0.	1⅜"	....	13.50

We can furnish Double Sliding Doors 1¾ inches thick at $2.50 extra over above prices.

Note: We do not carry in stock Single Sliding Doors, but make them up special to order. We can make single sliding doors similar to our double sliding doors, of the same excellent quality and shipment about four weeks after receipt of order. Write us for special prices on Single Sliding Doors.

10-X-441

Inside Jambs for Doors and Openings

Lumber from which our interior jambs are made is cut smooth and true, clear face stock. Side jambs dadoed for heads, heads cut square and straight. Prices do not include inside doorstops, which are extra. See price list below. Also listed elsewhere in this catalog. About 20 lineal feet of stops required for each inside frame.

Standard Door Jambs Without Stops

No. 10-X-101—Inside door jambs for 2x4 studding, for doors 2 ft. 6 in. by 6 ft. 6 in. and under—Yellow Pine—Price each..... **$1.48**
2 ft. 8 in. by 6 ft. 8 in.....$1.50
2 ft. 10 in by 6 ft 10 in.....$1.66
3 ft. by 7 ft.....$1.63
Intermediate sizes take next higher price.

No. 10-X-602—Inside door jambs for 2x4 studding, for doors 2 ft. 6 in. by 6 ft. 6 in., or smaller sizes—Red Oak—Price each.....$2.78

No. 10-X-603—Same as above, except for sizes up to 2 ft. 8 in. by 6 ft. 8 in.—Red Oak—Price each $2.80

No. 10-X-604—Same as above except for sizes up to 3 ft. by 7 ft.—Red Oak—Each.....$3.10

SPECIAL—Add for Yellow Pine stops to price of Yellow Pine jambs per set.....42c

SPECIAL—Add for Red Oak stops to price of Red Oak jambs per set.....72c

Inside Cased Opening Jambs

Cased opening jambs are made the same as regular standard door jambs except for wider and higher openings. Price covers one complete frame made for 2x4 studding without stops. For stops see elsewhere on the moulding pages.

SIZE Ft. In. Ft. In.	10-X-625 Yellow Pine	10-X-626 Plain Red Oak
5-0 x 7-0.....	$1.85	$3.40
8-0 x 8-0.....	2.08	3.88
9-0 x 9-0.....	2.50	4.65

Sliding Door Jambs for Double Doors

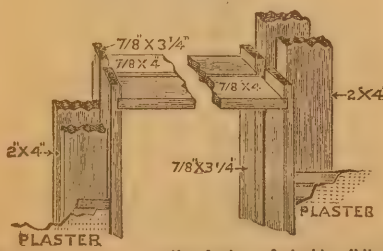


Illustration shows a sectional view of double sliding door jambs for a pair of Sliding Doors. The same high quality material as our standard jambs for regular Doors shown above. Prices below are for complete frame without stops, and furnished for 2x4 studding set edgewise as shown in illustration.

No. 10-X-615—Double Sliding Door jambs for openings up to 6 feet wide by 7 feet high—**Yellow Pine**—Price per set.....$2.68

No. 10-X-617—Double Sliding Door jambs for opening up to 6 ft. wide by 7 ft. high—**Red Oak**—Price per set.....$4.90

SPECIAL—Add for Yellow Pine Stops to price of **Yellow Pine** Sliding Door jambs, per set.....92c

SPECIAL—Add for Red Oak Stops to price of **Red Oak** Sliding Door jambs, per set $1.60

Sliding Door Jambs for Single Doors

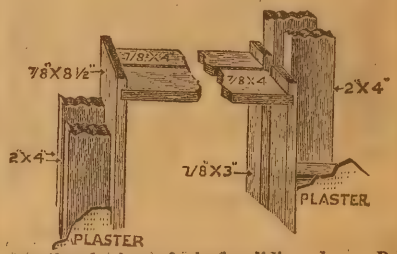


Illustration shows a sectional view of single sliding door. Prices below are for complete frame without stops, and furnished for 2x4 studding set edgewise as shown in illustration.

No. 10-X-619—Single Sliding Door jambs for openings up to **6 ft.** by **7 ft. high—Yellow Pine**—Price per set.....$2.85

No. 10-X-621—Single Sliding Door jamb for sizes up to **6 ft.** wide by **7 ft. high—Red Oak**—Price per set.....$5.20

SPECIAL—Add for Yellow Pine stop to price of **Yellow Pine** Single Sliding jambs, per set.....92c

SPECIAL—Add for Red Oak stop to price of **Red Oak** Single Sliding jambs, per set.....$1.60

Impressive Front Entrances

"Colonial" Front Entrance

In our Colonial Front Entrance we present you an entrance true to type, correctly proportioned and of splendid design. This entrance should grace a house of Colonial Architecture, and this type has been a favorite with many high class American homes for over a century. Of course, you do not have to adhere to the style of door, sidelights or transom shown. You can select any other design shown in this book to fit the openings. But for fine appearance we recommend this entrance just as illustrated.

SPECIFICATIONS: The frame is hand made of Clear Oregon Fir, a wood which is best suited for external use because it stands up under severe weather changes. The outside casing is 1⅛"x4¼". The sill is 1¾"x7½". Jambs are 1⅜"x5½", rabbeted to receive doors 1¾" thick and furnished in this manner unless ordered to the contrary.

The workmanship is first class and the Entrance reaches you finely finished and smoothly sanded ready to receive first priming coat of paint. The frame is shipped knocked down, but perfectly fitted ready to put together. That part of the frame above the door and sidelights, which includes the transom bar and head jamb, is completely assembled and reaches you in one piece, so there is very little work necessary except to nail the jambs and sill to the head and the frame is complete.

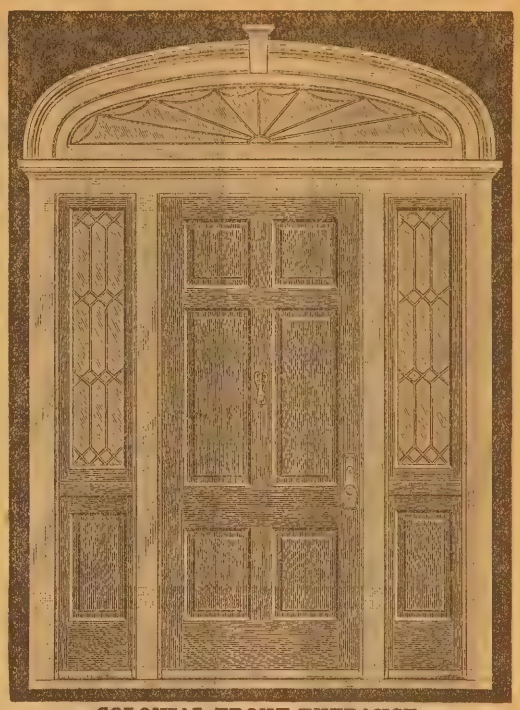
The door illustrated in this Entrance is our "Colonial" 3-0x7-0, 1¾, No. 10-X-324, the sidelights, each 1-2x7-0, 1⅜, our No. 10-X-205 glazed Leaded Glass and the transom our No. 10-X-407.

Prices of Frame Only

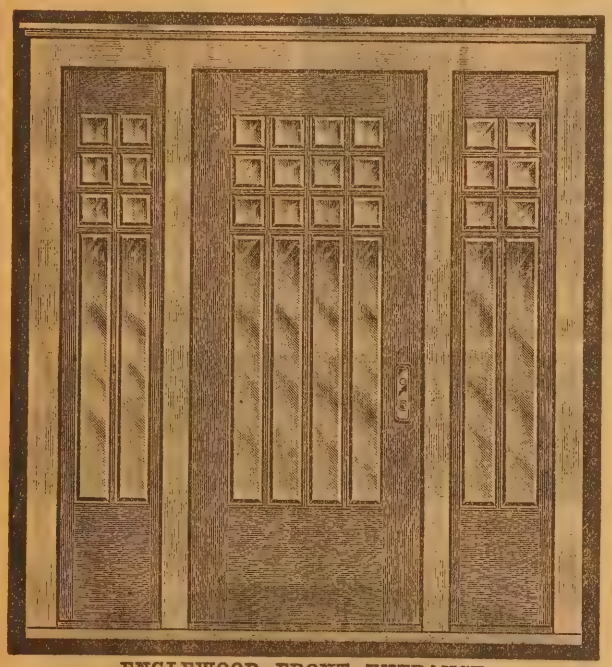
No. 10-X-360. Colonial Entrance frame only.
Price **$30.98**

Prices of Complete Frame

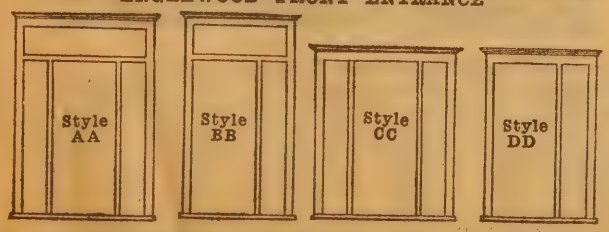
No. 10-X-365. Colonial Front Entrance, complete with door, sidelights and transom as shown in cut to the right.
Price—Hardware not included **$73.46**



COLONIAL FRONT ENTRANCE



ENGLEWOOD FRONT ENTRANCE



"Englewood" Front Entrance

The Englewood Front Entrance like the Colonial Front Entrance above is made of the same excellent quality of material and workmanship throughout.

SPECIFICATIONS: The frame is hand made of Clear Oregon Fir, a wood which is best for external use because it stands up under severe weather changes. The outside casing is 1⅛"x4¼". The sill is 1¾"x7½". Jambs are 1⅜"x5½", rabbeted to receive doors 1¾" thick and furnished in this manner unless ordered to the contrary. The frame is shipped knocked down and perfectly fitted ready to fit together.

The door shown in the Entrance to the left is our Shakespeare No. 10-X-218, 3-0x7-0, 1¾. Clear Red Oak glazed Bevel Plate Glass, the sidelights, each 1-2x7-0, 1¾, our No. 10-X-405 Clear Red Oak Glazed Bevel Plate Glass.

We can furnish this Entrance with either one or two sidelights and also with transom over the door and sidelights. In the diagram below we show four different styles and you can select any door, sidelight or transom you desire to fill the openings in the frames.

Prices

No. 10-X-408. Englewood Front Entrance, complete, per specifications above, glazed in Clear Double Strength glass.
Price **$52.36**

No. 10-X-410. Ditto above, but glazed with Clear Bevel Plate as shown in illustration.
Price **$84.74**

Prices do not include hardware. For price on frames only, see below.

Front Entrance Frames

SPECIFICATIONS: For wood buildings, our frames are made with Crown Mould Cap Head, 1⅛"x4¼" outside Casing, 1⅜"x5½" Jamb, 1¾"x7½" Sill. For brick building where the wall is 13 inches thick our frames are made with 1¾"x10½" Jamb, and 1⅛"x2" Brick Moulding.

Prices below cover frames only, with door opening up to 3 ft. x 7 ft.; Sidelight opening up to 1 ft. 2"x7 ft. and transom opening up to 18 inches high. All frames as shipped knocked down ready to put together.

Style of Frame	For Wood Building	Price	For 13-inch Brick Wall	Price
"AA"	10-X-450	$14.19	10-X-452	$17.37
"BB"	10-X-470	12.97	10-X-474	14.87
"CC"	10-X-460	11.77	10-X-464	12.97
"DD"	10-X-480	10.67	10-X-484	11.77

Oak Frames for 13-inch Brick Wall, 50% extra.

Attractive Designs in Sidelights and Transoms

For Front Entrances and Vestibules. Our Sidelights and Transoms are made from selected woods, "A" Quality Soft Pine, Clear Red Oak and Clear Northern Birch. The attractive designs shown here are very popular and thoroughly in harmony with our own Front Entrance designs illustrated on opposite page. Sidelight No. 205 can be furnished with Leaded Glass like No. 209. We also furnish No. 209 glazed plain (not leaded) either D. S. Glass or Bevel Plate.

10-X-205

10-X-209

10-X-402

10-X-403

10-X-405

SIZES 1⅜ Inch Thick Width Height Ft. In. Ft. In.	10-X-205 White Pine		10-X-209 White Pine		10-X-209 Red Oak		10-X-402 White Pine		10-X-402 Red Oak		10-X-403 Red Oak		10-X-405 Red Oak	
	Gla. Clear D. S. A.	Gla. Like No. 209	Gla. Plain D. S. A.	Gla. Ldd. as Shown	Gla. Plain D. S. A.	Gla. Bev. Plate	Gla. Clear D. S. A.	Gla. Bev. Plate	Gla. Clear D. S. A.	Gla. Bev. Plate	Gla. Clear D. S. A.	Gla. Bev. Plate	Gla. Clear D. S. A.	Gla. Bev. Plate
1 - 2 x 6 - 8	$4.85	$6.92	$5.30	$7.74	$7.26	$13.89	$8.06	$14.88	$10.44	$17.27	$8.66	$15.39	$9.72	$16.73
1 - 2 x 7 - 0	5.43	7.52	6.03	8.49	7.37	14.87	8.67	16.38	10.53	18.24	8.87	16.37	9.84	17.21

Oak and Birch Side Light 1¾ inch thick, 10% extra.

Transom No. 10-X-401

Transom No. 10-X-404

Transom No. 10-X-410

Transom No. 10-X-407

Transoms No. 10-X-404 and 10-X-407 can be furnished glazed leaded beveled plate. Write for prices.

SIZES 1⅜ Inch Thick Ft. In. Ft. In.	10-X-401 White Pine		10-X-401 Oak or Birch		10-X-410 Glazed Clear, D. S.		10-X-404 Glazed Leaded Crystal		10-X-407 Leaded Cryst.	10-X-407 Glazed Clear
	Gl. 1 Lt. D. S.	Gl. 2 Lt. D. S.	Gl. 1 Lt. D. S.	Gl. 2 Lt. D. S.	White Pine	Oak-Birch	White Pine	Oak-Birch	White Pine	D. S. Glass
4-6 wide, up to 1-6 high	$3.82	$3.94	$5.25	$5.37	$ 9.26	$10.50	$6.51	$ 8.48	$15.44	$10.63
4-8 wide, up to 1-6 high	3.85	3.97	5.40	5.52	9.29	10.65	6.90	8.78	15.84	10.66
6-0 wide, up to 1-6 high	5.66	5.78	6.84	6.96	11.08	12.09	8.55	10.95	17.70	12.44
6-4 wide, up to 1-6 high	7.07	7.19	7.55	7.67	12.51	12.80	8.94	11.48	18.15	13.87

The **6 foot** and **6 foot 4 inch** sizes are for frame made for **3 foot** door in width and for two Sidelights. **1 foot 2 inches** wide, while the **4 foot 6 inch** size is for frame, made for **one** Sidelight only. **Transom prices remain the same if narrower doors than 3 foot are used.**

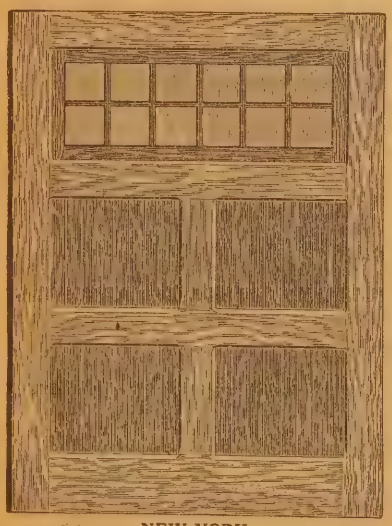
Sliding or Swinging Garage and Warehouse Doors

The Austin and Ashland Doors are made of selected white pine lumber in our own factory. These doors are machine made and are much better and cheaper than hand made doors. Each door measures 4 feet wide and 8 feet high; 2 doors, or one pair, will fill a standard opening 8 feet wide x 8 feet high. We carry these doors in stock and can always make prompt shipment. When shipping, the doors are carefully crated and are guaranteed to reach you in good condition.

AUSTIN

ASHLAND

AUSTIN DOOR						ASHLAND DOOR					
Catalog Number	SIZE			Weight	Price	Catalog Number	SIZE			Weight	Price
	Width	Height	Thickness				Width	Height	Thickness		
10-X-501	8 Ft.	8 Ft.	1¾ in.	240	$26.50	10-X-502	8 Ft.	8 Ft.	1¾ in.	240	$28.75



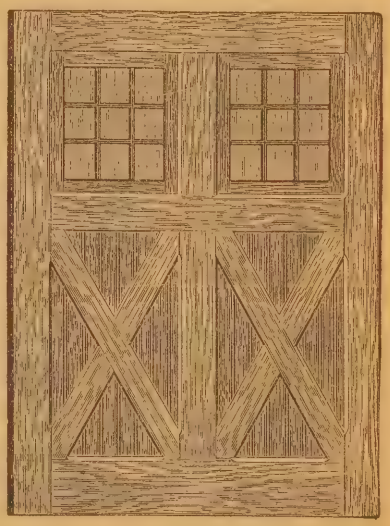
NEW YORK

Better Than Home Made Doors and Cost Less

New York and Ohio doors are single doors for extra large openings, strongly braced in every part and put together to stay. They are built for service and will stand a lot of hard knocks. They are manufactured in the same way as the Austin and Ashland doors described above. We use carefully selected woods, suitable for the purpose and smoothly finished.

The sash panels in the New York and Ohio doors are glazed in clear glass. As these doors are made to order, they can be furnished in all sizes whether listed or not; intermediate sizes take the same price as next higher listed size.

We can furnish frames made to order for any of these doors. Write for prices.

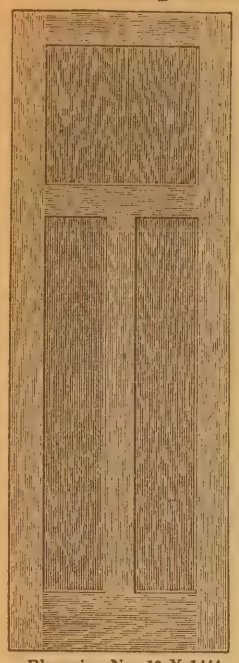


OHIO

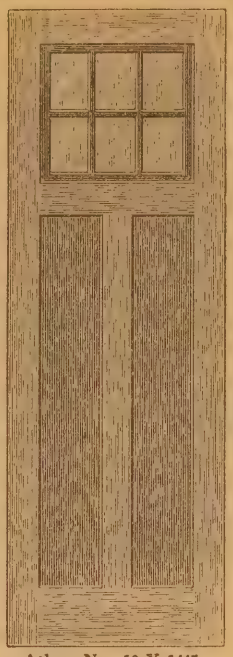
SIZES	NEW YORK		SIZES	OHIO	
Width Ft. In. Height Ft. In.	10-X-495 1¾ inches Thick	10-X-496 2¼ inches Thick	Width Ft. In. Height Ft. In.	10-X-497 1¾ inches Thick	10-X-498 2¼ inches Thick
5-0 x 7-0	$21.00	$24.50	5-0 x 7-0	$21.75	$25.25
6-0 x 7-0	25.20	29.40	6-0 x 7-0	25.95	30.15
5-0 x 8-0	24.00	28.00	5-0 x 8-0	24.70	28.70
6-0 x 8-0	24.80	29.60	6-0 x 8-0	25.60	30.40
8-0 x 8-0	38.40	44.80	8-0 x 8-0	38.95	45.35
8-0 x 10-0	48.00	56.00	8-0 x 10-0	48.75	56.75
10-0 x 10-0	60.00	70.00	10-0 x 10-0	60.90	71.50

Durable Multifold Door Combinations

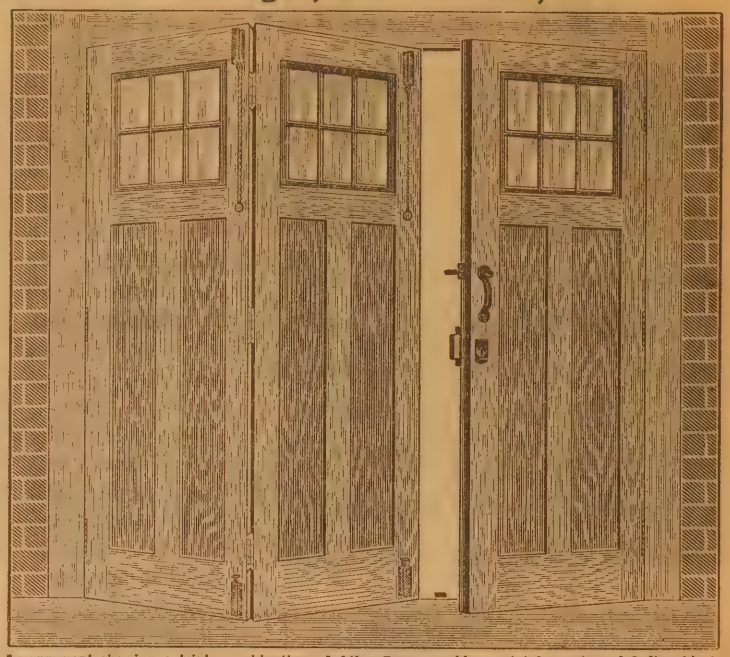
1¾ Inch Thick White Pine—For Garages, Warehouses, Etc.



Phoenix—No. 10-X-1444



Atlas—No. 19-X-1445



Arrangement showing a triple combination of Atlas Doors, making a total opening of 8 ft. wide by 8 ft. high.

Our Multifold Combination Garage and Warehouse Doors are made of White Pine, one of the best woods known for exterior use. The stiles and rails of the doors are mortised and wedged, which construction gives you not only a substantial door, but a door that is more durable. The panels are extra heavy and solid, being set into the grooves of the stiles and rails by means of special machinery, making it impossible for the panel to warp or check.

In offering you these doors it is our intention to give you the best value obtainable for the money, and we must ask that you do not confuse these doors with the so-called "just-as-good-makes" on the market at the present time. Remember, our doors are made of White Pine, of mortised and wedged construction, and equipped with non-warp panels—three distinct and essential features necessary to make a good garage or warehouse door.

Single

Guaranteed Non-Warp Panels

Double

Stiles and Rails Mortised and Wedged

Triple

Kiln Dried White Pine

Machine Sanded Finish

Quadruple

MULTIFOLD COMBINATION	SINGLE DOOR	DOUBLE COMBINATION	TRIPLE COMBINATION	QUADRUPLE COMBINATION
Size of each door	2'8" x 8'	2'8" x 8'	2'8" x 8'	2'8" x 8"
Total size	2'8" x 8'	5'4" x 8'	8' x 8'	10'8" x 8'
Price Phoenix, 10-X-1444	$9.30	$18.40	$27.30	$35.95
Price Atlas, 10-X-1445	9.65	19.10	28.35	37.40

ORNAMENTAL THUMB LATCHES AND HANDLES

4-X-3633. Bronze finish. For doors ⅞ to 1¾ inches thick. Complete with screws. Each.. **20c**

RIM DEAD LOCK

4-X-3439. Japanned iron case, 5x3½ inches. Heavy wrought iron bolt, steel inside bolts, two nickel plated steel folding keys. Complete with screws. Price **90c**

JAPANNED LOOSE PIN BALL TIPPED STEEL BUTTS

4"x4" 4-X-3577. Made of heavy steel, nicely japanned. Price, per pair, including screws. Pair **36c**

STEEL CHAIN BOLTS

Length, 6 inches, with 2 feet of chain. Screws to match.

4-X-3511. Plated Antique Copper.. **57c**

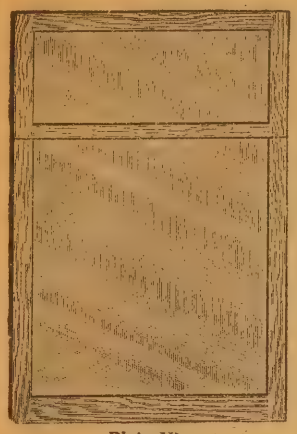
FOOT BOLTS

Electro plated wrought steel, spring release. Length, 6 inches. Screws to match.

4-X-3515. Plated Antique Copper... **55c**

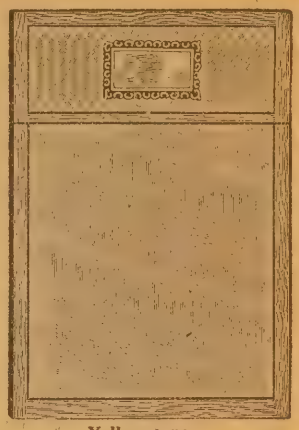
See the Big Savings on Hog Troughs in This Book

Beautiful Artistic Designs in Cottage Windows


Plain View

New Art

Niagara


Yellowstone

We show a number of the best designs in cottage windows and we are confident that a choice can be made to suit the taste of the most fastidious. The different styles range from the clear, plain glass of our "Plainview" Window to the stately beauty of leaded beveled plate as exemplified in our "Aristocrat" design.

Our "New Art" and "Niagara" cottage windows represent two of the latest creations of modern art in glass. The designs in the top lights of both these windows are made of a combination of opalescent glass rich in color with a background of clear glass, producing an effect that displays taste and is most pleasing to the eye.

The "Yellowstone" cottage window with the top light of lace pattern glass is also beautiful, and particularly desirable where a medium priced window is wanted.

Glass Size, Bottom Sash, Width Height	Glass Size, Top Sash, Width Height	Outside Measure Width Height	"Plainview" 10-X-64 Price	"New Art" 10-X-69 Price	"Niagara" 10-X-68 Price	Yellowstn. 10-X-272 Price	"Crystal" 10-X-66 Price	"Herald" 10-X-281 Price	'Rainbow' 10-X-282 Price	Aristocrat 10-X-70 Price
40" x 42"	40" x 14"	3'8" x 5' 2"	$6.47	$10.01	$ 9.44	$ 8.73	$ 8.85	$ 9.47	$ 9.74	$12.92
40" x 40"	40" x 16"	3'8" x 5' 2"	5.91	9.96	9.29	8.01	8.61	9.29	9.62	13.34
40" x 46"	40" x 14"	3'8" x 5' 6"	6.77	10.31	9.74	9.02	9.15	9.77	10.19	13.16
44" x 40"	44" x 16"	4'0" x 5' 2"	6.83	11.22	10.50	8.82	9.77	10.50	10.88	14.88
44" x 44"	44" x 16"	4'0" x 5' 6"	7.13	11.52	10.80	9.12	10.07	10.80	11.18	15.18
44" x 48"	44" x 16"	4'0" x 5'10"	8.43	12.83	12.11	10.43	11.37	12.11	12.48	16.49

Our "Crystal" design in clear glass is one of the best examples of a leaded glass pattern. It is exactly the same in design as our "Aristocrat," differing from it only in that the top sash in the latter is beveled plate while the "Crystal" is all clear double strength glass.

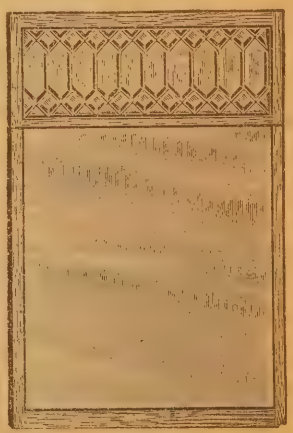
We also show here two of the best designs in leaded colored art glass. Our "Herald" is made up after the same pattern as "Crystal" and "Aristocrat" and by a tasteful combination of colors, a real gem of a window results. Our "Rainbow" as its name implies, is a vari-colored design of leaded art glass. The colors are harmoniously blended and afford a shield from the sun's strong rays without making it necessary to draw the shades and exclude the light altogether.

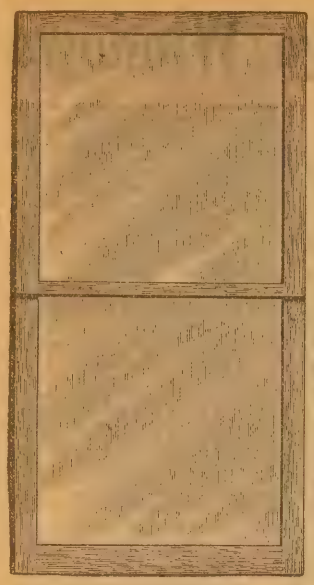
The lists shown on this page are not complete as to sizes. We can furnish any standard size up to 50x50 inches with 50x22 inch transom and we will be glad to quote prices on request.

Crystal

Rainbow

Herald


Aristocrat



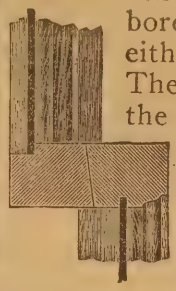
No. 10-X-71

Clear White Pine Windows

These windows are manufactured in our own shops. They are of clear white pine, kiln dried, sanded, primed, extra strong tacked, and puttied with high quality putty; also back puttied.

The term "window" means two sash—upper and lower.

All check rail windows are plowed and bored for sash cord and can be used either with or without weights. The check is the beveled rail where the two sash come together, as is illustrated in cross section cut shown at left.



When ordering be sure to give width first

Price includes both top and bottom sash

No. 10-X-72

Two Light Check Rail Windows

1 3/8 inches thick

10-X-71

Size of Glass	Price per Window—Glazed Single Strength	Double Strength	Outside Measure W'th Ft. In.	H'th Ft. In.
16x16	$1.65		1-	8 1/8x3- 2
16x18	1.80		1-	8 1/8x3- 6
16x20	1.95	$2.40	1-	8 1/8x3-10
16x24	2.22	2.76	1-	8 1/8x4- 6
16x26	2.49	3.21	1-	8 1/8x4-10
16x28	2.61	3.39	1-	8 1/8x5- 2
16x30	2.76	3.57	1-	8 1/8x5- 6
18x20	2.13	2.64	1-10	1/8x3-10
18x22	2.40	3.09	1-10	1/8x4- 2
18x24	2.49	3.21	1-10	1/8x4- 6
18x26	2.73	3.54	1-10	1/8x4-10
18x28	2.88	3.75	1-10	1/8x5- 2
18x30	3.03	3.99	1-10	1/8x5- 6
20x20	2.40	3.09	2-	0 1/8x3-10
20x22	2.58	3.36	2-	0 1/8x4- 2
20x24	2.73	3.54	2-	0 1/8x4- 6
20x26	2.88	3.75	2-	0 1/8x4-10
20x28	3.03	3.99	2-	0 1/8x5- 2
20x30	3.21	4.26	2-	0 1/8x5- 6
20x32	3.57	4.71	2-	0 1/8x5-10
22x22	2.73	3.54	2-	2 1/8x4- 2
22x24	2.88	3.75	2-	2 1/8x4- 6
22x26	3.03	3.99	2-	2 1/8x4-10
22x28	3.21	4.26	2-	2 1/8x5- 2
22x30	3.51	4.68	2-	2 1/8x5- 6
22x32	3.81	5.10	2-	2 1/8x5-10
24x20	2.73	3.54	2-	4 1/8x3-10
24x24	3.21	4.23	2-	4 1/8x4- 6
24x26	3.24	4.26	2-	4 1/8x4-10
24x28	3.51	4.68	2-	4 1/8x5- 2

Continued

Size of Glass	Price per Window—Glazed Single Strength	Double Strength	Outside Measure W'th Ft. In.	H'th Ft. In.
24x30	$3.78	$5.04	2-	4 1/8x5- 6
24x32	4.26	5.67	2-	4 1/8x5-10
24x34	4.29	5.70	2-	4 1/8x6- 2
24x36	4.68	6.27	2-	4 1/8x6- 6
26x22	3.06	4.02	2-	6 1/8x4- 2
26x24	3.21	4.26	2-	6 1/8x4- 6
26x26	3.51	4.68	2-	6 1/8x4-10
26x28	3.87	5.16	2-	6 1/8x5- 2
26x30	4.20	5.64	2-	6 1/8x5- 6
26x32	4.26	5.70	2-	6 1/8x5-10
26x34	4.95	6.66	2-	6 1/8x6- 2
26x36	4.98	6.69	2-	6 1/8x6- 6
28x26	3.84	5.13	2-	8 1/8x4-10
28x28	4.20	5.64	2-	8 1/8x5- 2
28x30	4.23	5.67	2-	8 1/8x5- 6
28x32	4.95	6.66	2-	8 1/8x5-10
28x34	4.98	6.69	2-	8 1/8x6- 2
28x36	5.[illegible]	7.50	2-	8 1/8x6- 6
30x24	3.78	5.04	2-10	1/8x4- 6
30x26	4.20	5.64	2-10	1/8x4-10
30x28	4.23	5.67	2-10	1/8x5- 2
30x30	5.37	6.63	2-10	1/8x5- 6
30x32	5.43	6.69	2-10	1/8x5-10
30x34	6.03	7.50	2-10	1/8x6- 2
30x36	6.06	7.53	2-10	1/8x6- 6
32x24	4.26	5.67	3-	0 1/8x4- 6
32x26	4.29	5.70	3-	0 1/8x4-10
32x28	4.95	6.66	3-	0 1/8x5- 2
32x30	5.43	6.69	3-	0 1/8x5- 6
32x32		7.50	3-	0 1/8x5-10
32x34		7.53	3-	0 1/8x6- 2
32x36		8.55	3-	0 1/8x6- 6
34x24	4.29	5.70	3-	2 1/8x4- 6
34x28	4.98	6.69	3-	2 1/8x5- 2
34x30	6.03	7.50	3-	2 1/8x5- 6
34x32		7.53	3-	2 1/8x5-10

Continued

Size of Glass	Price per Window—Glazed Single Strength	Double Strength	Outside Measure W'th Ft. In.	H'th Ft. In.
34x36		$8.55	3-	2 1/8x4- 6
36x24	$ 7.80	6.27	3-	4 1/8x4- 6
36x26	8.30	6.69	3-	4 1/8x4-10
36x28	9.20	7.50	3-	4 1/8x5- 2
36x30	10.10	7.53	3-	4 1/8x5- 6
36x32		8.55	3-	4 1/8x5-10
36x34		9.39	3-	4 1/8x6- 2
36x36		9.42	3-	4 1/8x6- 6
40x28		8.61	3-	8 1/8x5- 2
40x30		8.64	3-	8 1/8x5- 6
40x32		9.48	3-	8 1/8x5-10
40x34		11.04	3-	8 1/8x6- 2
40x36		11.07	3-	8 1/8x6- 6

Pantry Windows Two Light Check Rail

1 3/8 inches thick

10-X-85

Size of Glass Inches	Price per Window Glazed	Outside Measure W'th Ft. In.	H'th Ft. In.
12x20	$ 1.62	1-	4 1/8x3-10
12x24	1.86	1-	4 1/8x4- 6
12x26	1.98	1-	4 1/8x4-10
12x28	2.10	1-	4 1/8x5- 2
12x30	2.28	1-	4 1/8x5- 6
14x20	1.74	1-	6 1/8x3-10
14x24	2.07	1-	6 1/8x4- 6
14x26	2.13	1-	6 1/8x4-10
14x28	2.40	1-	6 1/8x5- 2
14x30	2.52	1-	6 1/8x5- 6

Four Light Check Rail Windows

1 3/8 inches thick

10-X-72

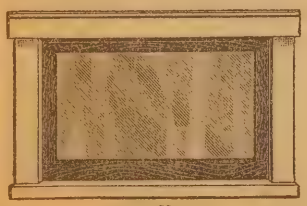
Size of Glass	Glazed Single Strength	Outside Measure W'th Ft. In.	H'th Ft. In.
10x20	$2.40	2-	1x3-10
10x22	2.55	2-	1x4- 2
10x24	2.73	2-	1x4- 6
10x26	2.94	2-	1x4-10
10x28	3.12	2-	1x5- 2
10x30	3.30	2-	1x5- 6
10x32	3.66	2-	1x5-10
12x20	2.70	2-	5x3-10
12x22	2.91	2-	5x4- 2
12x24	3.18	2-	5x4- 6
12x26	3.36	2-	5x4-10
12x28	3.60	2-	5x5- 2
12x30	3.90	2-	5x5- 6
12x32	4.20	2-	5x5-10
12x34	4.38	2-	5x6- 2
12x36	4.56	2-	5x6- 6
14x20	2.97	2-	9x3-10
14x22	3.36	2-	9x4- 2
14x24	3.57	2-	9x4- 6
14x26	3.72	2-	9x4-10
14x28	4.29	2-	9x5- 2
14x30	4.47	2-	9x5- 6
14x32	4.74	2-	9x5-10
14x34	5.01	2-	9x6- 2
14x36	5.28	2-	9x6- 6
15x30	4.89	2-11	x5- 6
15x32	5.25	2-11	x5-10
15x36	5.70	2-11	x6- 6

White Pine Hall, Closet or Stair Landing Sash

MADE IN FIRST-CLASS MANNER OF CLEAR WHITE PINE

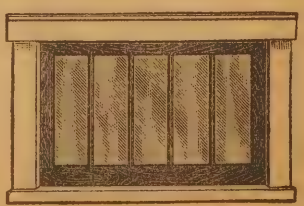
The side stiles and top rail are 2 in. wide while the bottom rail is 3 in. wide.

First quality material and manufacture. Glazed with clear glass, primed, puttied and back puttied. Exceptional values.



No. 10-X-1411

Glass Size Inches	Thickness Inches	Outside Measure Width Height ft. in. ft. in.	Price 10-X-1411 1 Light Glazed	Price 10-X-1413 5 Light Glazed
30x14	1 3/8	2-10x1- 7	$1.36	$2.45
30x16	1 3/8	2-10x1- 9	1.56	2.73
30x18	1 3/8	2-10x1-11	1.77	2.95
32x16	1 3/8	3- 0x1- 9	1.71	2.89
36x16	1 3/8	3- 4x1- 9	1.83	3.02
36x18	1 3/8	3- 4x1-11	2.04	3.26
40x18	1 3/8	3- 8x1-11	2.64	3.94



No. 10-X-1413

Clear White Pine Windows

The Plain Rail Windows shown on this page are made of stock 1⅛ inches thick and are usually held in place by spring bolts on one or both sides of each sash. A window of this kind is rarely put in a first class residence but for the cheaper houses and to be used in barns, sheds and shops, the plain rail window is all right and can be recommended. The same high grade stock is used as in our check rail windows and each sash is primed in white lead and oil, and the glass is well puttied in.

When ordering, be sure to give width first.

Prices for all windows on this page include top and bottom sash with glass puttied and back puttied.

Eight Light Check Rail Windows

1⅜ Inch Thick

10-X-74

Our Check Rail Windows plowed and bored for sash and can be used with or without weights.

The Check Rail feature with the two sash come together, prevents rattling and makes the windows stormproof.

Size of Glass	Thickness	Price per Window Glazed	Outside Measure W'th, H'th, Ft.In. Ft.In.
8x10	1⅜	$2.13	1- 9x3-10
8x12	1⅜	2.40	1- 9x4- 6
9x12	1⅜	2.55	1-11x4- 6
9x14	1⅜	2.85	1-11x5- 2
10x12	1⅜	2.73	2- 1x4- 6
10x14	1⅜	3.03	2- 1x5- 2
10x16	1⅜	3.66	2- 1x5-10
12x14	1⅜	3.57	2- 5x5- 2
12x16	1⅜	3.99	2- 5x5-10
12x18	1⅜	4.41	2- 5x6- 6
14x16	1⅜	4.50	2- 9x5-10
14x18	1⅜	4.83	2- 9x6- 6
14x20	1⅜	5.34	2- 9x7- 2

Twelve Light Check Rail Windows

1⅜ Inch Thick

10-X-76

Size of Glass	Thickness	Price per Window Glazed	Outside Measure W'th, H'th, Ft.In. Ft.In.
8x10	1⅜	$2.88	2- 4½x3-10
8x12	1⅜	3.24	2- 4½x4- 6
9x12	1⅜	3.48	2- 7½x4- 6
9x14	1⅜	3.87	2- 7½x5- 2
10x12	1⅜	3.75	2-10½x4- 6
10x14	1⅜	4.17	2-10½x5- 2
10x16	1⅜	5.04	2-10½x5-10
10x18	1⅜	5.34	2-10½x6- 6
12x14	1⅜	5.07	3- 4½x5- 2
12x16	1⅜	5.55	3- 4½x5-10
12x18	1⅜	6.15	3- 4½x6- 6
12x20	1⅜	6.72	3- 4½x7- 2

Plain Rail Windows Four Light

1⅛ Inch Thick

10-X-73

Size of Glass	Thickness	Price per Window Glazed	Outside Measure W'th, H'th, Ft.In. Ft.In.
12x20	1⅛	$2.61	2- 5x3-10
12x24	1⅛	3.06	2- 5x4- 6
12x26	1⅛	3.24	2- 5x4-10
12x28	1⅛	3.48	2- 5x5- 2

Plain Rail Windows

Plain Rail Windows Eight Light

10-X-75

Size of Glass	Thickness	Price per Window Glazed	Outside Measure W'th, H'th, Ft.In. Ft.In.
8x10	1⅛	$1.98	1- 8½x3-10
8x12	1⅛	2.22	1- 8½x4- 6
9x12	1⅛	2.40	1-10½x4- 6
9x14	1⅛	2.67	1-10½x5- 2
10x12	1⅛	2.58	2- 0½x4- 6
10x14	1⅛	2.88	2- 0½x5- 2
10x16	1⅛	3.42	2- 0½x5-10
12x14	1⅛	3.36	2- 4½x5- 2
12x16	1⅛	3.75	2- 4½x5-10

Plain Rail Windows Twelve Light

10-X-77

Size of Glass	Thickness	Price per Window Glazed	Outside Measure W'th, H'th, Ft.In. Ft.In.
7x 9	1⅛	$2.31	2- 1x3- 6
8x10	1⅛	2.67	2- 4x3-10
8x12	1⅛	3.00	2- 4x4- 6
8x14	1⅛	3.36	2- 4x5- 2
9x12	1⅛	3.24	2- 7x4- 6
9x14	1⅛	3.63	2- 7x5- 2
9x15	1⅛	3.84	2- 7x5- 6
10x12	1⅛	3.51	2-10x4- 6
10x14	1⅛	$3.93	2-10x5- 2
10x15	1⅛	4.14	2-10x5- 6
10x16	1⅛	4.74	2-10x5-10
10x18	1⅛	5.04	2-10x6- 6
12x14	1⅛	4.74	3- 4x5- 2
12x16	1⅛	5.22	3- 4x5-10

Factory Plain Rail Windows—Fifteen Light

10-X-78

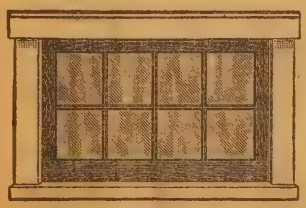
Size of Glass	Thickness	Price per Window Glazed	Outside Measure W'th, H'th, Ft.In. Ft.In.
8x10	1⅛	$3.09	2- 4½x4-8½
10x12	1⅛	4.62	2-10½x5-6⅞

Factory Plain Rail Windows—Eighteen Light

10-X-79

Size of Glass	Thickness	Price per Window Glazed	Outside Measure W'th, H'th, Ft.In. Ft.In.
8x10	1⅛	$4.35	2- 4½x5-7⅛
10x12	1⅛	5.73	2-10½x6-7⅛

White Pine Hall, Closet or Stair Landing Sash

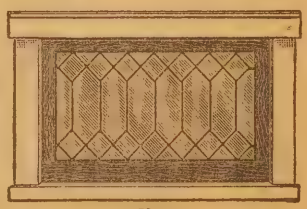


10-X-1412

The side stiles and top rail are 2 in. wide while the bottom rail is 3 in. wide. Made of Clear White Pine.

First quality material and manufacture. Glazed with clear glass, primed, puttied and back puttied. Exceptional values.

Glass Size Inches	Thickness Inches	Measure Outside Width Height ft. in. ft. in.	10-X-1412 Price 8 Light Glazed	10-X-1414 Price Glazed Leaded
30x14	1⅜	2-10x1- 7	$2.68	$3.24
30x16	1⅜	2-10x1- 9	2.95	3.51
30x18	1⅜	2-10x1-11	3.20	3.87
32x16	1⅜	3- 0x1- 9	3.13	3.77
36x16	1⅜	3- 4x1- 9	3.26	4.17
36x18	1⅜	3- 4x1-11	3.50	4.60
40x18	1⅜	3- 8x1-11	4.18	5.09



10-X-1414

Queen Anne or Colonial Windows

10-X-1337

10-X-1342

Fancy Cut Up Top Sash Divided by Wood Bars

Checkrail 1⅜" Thick

These are the best known and most popular designs in fancy cut up top sash. Wood bars are used to divide the lights and the work is done by hand, each piece being carefully mortised in and securely nailed. The sash are first primed in pure Linseed Oil and then glazed. Every light of glass is well puttied and will hold its place.

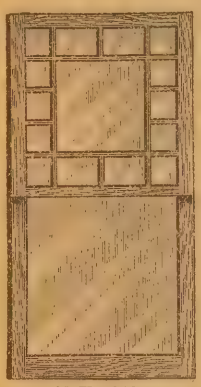
Price table below includes window complete as illustrated, top sash and bottom sash, glazed with clear glass.

Gla. S. S. means that the window is set with glass of single strength thickness.

Gla. D. S. means that the window is set with glass of double strength thickness.

10-X-1338

10-X-1339



10-X-1340

10-X-1341

Number of Lights according to width of window.

Window No.	Glass Measure	Will be Furnished
10-X-1341	Up to 24" wide	3 lights wide
10-X-1341	24" to 32" wide	4 lights wide
10-X-1341	32" to 40" wide	6 lights wide
10-X-1400	Up to 20" wide	4 lights wide
10-X-1400	20" to 24" wide	5 lights wide
10-X-1400	24" to 32" wide	6 lights wide
10-X-1400	32" to 40" wide	7 lights wide

10-X-1400

10-X-1500

Sizes Not Listed and Other Designs Can Be Furnished at Correspondingly Low Prices

Sizes of Glass	OUTSIDE MEASURE Width Height Ft.In. Ft.In.	10-X-1337 Gla. S.S.	10-X-1337 Gla. D.S.	10-X-1338 Gla. S.S.	10-X-1338 Gla. D.S.	10-X-1339 Gla. S.S.	10-X-1339 Gla. D.S.	10-X-1340 Gla. S.S.	10-X-1340 Gla. D.S.	10-X-1341 Gla. S.S.	10-X-1341 Gla. D.S.	10-X-1342 Gla. S.S.	10-X-1342 Gla. D.S.	10-X-1400 Gla. S.S.	10-X-1400 Gla. D.S.	10-X-1500 Gla. S.S.	10-X-1500 Gla. D.S.
16 x 20	1- 8⅛ x 3-10	$3.40	$ 3.91	$3.57	$ 4.08	$3.33	$ 4.04	$4.45	$ 4.98	$2.79	$ 3.29	$3.13	$ 3.63	$4.65	$ 5.03	$5.06	$ 5.58
16 x 24	1- 8⅛ x 4- 6	3.70	4.31	3.88	4.49	4.31	4.84	4.76	5.37	3.09	3.70	3.46	4.04	4.96	5.58	5.37	5.99
20 x 20	2- 0⅛ x 3-10	3.91	4.69	4.08	4.86	4.52	5.30	4.96	5.74	3.20	4.08	3.63	4.30	5.16	5.95	5.58	6.35
20 x 24	2- 0⅛ x 4- 6	4.28	5.20	4.45	5.37	4.90	5.81	5.33	6.26	3.69	4.59	4.01	4.93	5.54	6.46	5.95	6.87
20 x 28	2- 0⅛ x 5- 2	4.62	5.71	4.79	5.88	5.24	6.32	5.67	6.76	4.01	5.10	4.35	5.44	5.88	6.97	6.29	7.37
22 x 24	2- 2⅛ x 4- 6	4.45	5.44	4.62	5.61	5.06	6.05	5.51	6.49	3.84	4.83	4.18	5.17	5.71	6.69	6.12	7.10
22 x 26	2- 2⅛ x 4-10	4.62	5.71	4.79	5.88	5.24	6.32	5.67	6.76	4.01	5.10	4.35	5.44	5.88	6.97	6.29	7.37
22 x 28	2- 2⅛ x 5- 2	4.83	6.01	4.99	6.19	5.44	6.63	5.88	7.07	4.22	5.40	4.56	5.74	6.08	7.28	6.49	7.68
22 x 30	2- 2⅛ x 5- 6	5.19	6.49	5.33	6.66	5.78	7.10	6.22	7.55	4.56	5.88	4.90	6.22	6.42	7.75	6.83	8.16
24 x 20	2- 4⅛ x 3-10	4.28	5.20	4.45	5.37	4.90	5.81	5.33	6.26	3.88	4.79	4.01	4.93	5.54	6.46	5.95	6.87
24 x 24	2- 4⅛ x 4- 6	4.83	5.98	4.99	6.15	5.44	6.60	5.88	7.03	4.42	5.58	4.56	5.71	6.08	7.24	6.49	7.66
24 x 26	2- 4⅛ x 4-10	4.86	6.01	5.03	6.19	5.47	6.63	5.92	7.07	4.45	5.61	4.59	5.74	6.12	7.28	6.53	7.68
24 x 28	2- 4⅛ x 5- 2	5.19	6.49	5.33	6.66	5.78	7.10	6.22	7.55	4.76	6.08	4.90	6.22	6.42	7.75	6.83	8.16
24 x 30	2- 4⅛ x 5- 6	5.47	6.90	5.64	7.07	6.08	7.51	6.53	7.96	5.06	6.49	5.20	6.63	7.03	8.16	7.14	8.57
26 x 26	2- 6⅛ x 4-10	5.19	6.49	5.33	6.66	5.78	7.10	6.22	7.55	4.76	6.08	4.90	6.22	6.42	7.75	6.83	8.16
26 x 28	2- 6⅛ x 5- 2	5.51	7.03	5.74	7.21	6.19	7.65	6.63	8.09	5.17	6.63	5.30	6.77	6.84	8.30	7.24	8.70
26 x 30	2- 6⅛ x 5- 6	5.95	7.58	6.12	7.75	6.56	8.19	7.09	8.64	5.54	7.17	5.67	7.31	7.21	8.84	7.62	9.25
28 x 28	2- 8⅛ x 5- 2	5.95	7.58	6.12	7.75	6.56	8.19	7.00	8.64	5.54	7.17	5.67	7.31	7.21	8.84	7.62	9.25
28 x 30	2- 8⅛ x 5- 6	5.98	7.62	6.15	7.78	6.60	8.23	7.03	8.67	5.58	7.21	5.70	7.34	7.25	8.88	7.66	9.29
28 x 32	2- 8⅛ x 5-10	6.80	8.73	6.97	8.91	7.41	9.35	7.85	9.79	5.71	8.33	6.47	8.46	8.05	10.00	8.46	10.40
30 x 24	2-10⅛ x 4- 6	5.47	7.58	5.64	7.07	6.08	7.51	6.53	7.96	5.06	6.49	5.20	6.63	7.03	8.16	7.14	8.57
30 x 28	2-10⅛ x 5- 2	5.98	8.73	6.15	7.78	6.73	8.23	7.03	8.67	5.58	7.21	5.70	7.34	7.25	8.88	7.66	9.29
30 x 30	2-10⅛ x 5- 6	7.28	8.77	7.44	8.87	7.89	9.32	8.33	9.75	6.87	8.30	7.00	8.43	8.53	9.96	8.94	10.37
30 x 32	2-10⅛ x 5-10	7.34	9.61	7.51	8.94	7.96	9.38	8.39	9.82	6.94	8.36	7.07	8.50	8.61	10.03	9.01	10.44
32 x 28	3- 0⅛ x 5- 2	6.80	8.73	6.97	8.91	7.41	9.35	7.75	9.79	6.80	8.73	6.53	8.46	8.05	10.00	8.46	10.40
32 x 30	3- 0⅛ x 5- 6	7.34	8.77	7.51	8.94	7.96	9.38	8.39	9.82	7.34	8.77	7.07	8.50	8.61	10.03	9.01	10.44
36 x 28	3- 4⅛ x 5- 2	7.44	9.69	7.62	9.86	8.05	10.30	8.50	10.74	7.44	9.69	7.17	9.21	8.70	10.95	9.11	11.36
36 x 30	3- 4⅛ x 5- 6	8.05	9.72	8.23	9.89	8.67	10.34	9.11	10.77	8.05	9.72	7.78	9.45	9.32	10.99	9.82	11.40
36 x 32	3- 4⅛ x 5-10	...	10.88	...	11.05	...	11.49	...	11.93	...	10.88	...	10.61	...	12.13	...	12.54
40 x 28	3- 8⅛ x 5- 2	...	10.95	...	11.12	...	11.56	...	12.00	...	10.95	...	10.68	...	12.20	...	12.61

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago

Most Popular French Windows

10-X-304

10-X-305

10-X-306

No home is complete without a pair of our handsome and artistic French Windows. They harmonize with any style of architecture. Made of best quality "A" grade Soft White Pine stock, glazed with clear double strength glass. They are furnished in pairs, rabbeted at the center where the sash join, in the manner of a cupboard door, thus insuring a close fit. Strong wood dividing bars are used and the sash are built in the most substantial manner. The three designs we show here are the most desirable as well as the most popular. All our French Windows are made to order only.

Price per Pair of French Windows

Opening Size	2-8x3-6	2-8x4-6	2-10x5-2	2-10x5-6	3-0x5-2	3-0x5-6	3-4x5-6	3-4x5-10	3-8x5-6	3-8x5-10
10-X-304	$ 7.41	$ 8.30	$10.06	$10.16	$10.00	$10.09	$11.31	$11.42	$11.42	$11.50
10-X-305	8.92	9.82	11.56	11.66	11.49	11.59	12.24	12.34	12.88	12.99
10-X-306	6.53	7.10	8.33	8.60	8.26	8.53	9.11	9.45	9.75	9.86

In the more up-to-date residences, bungalows, and modern homes, French Doors and Windows are becoming increasingly popular. They add much to the charm and beauty of the home. A pair of these doors leading from your living room to the porch will add just the right touch to make a perfect ensemble. They are also used for balcony doors, or the opening to the conservatory or between rooms.

Furnished in "A" quality White Pine or Veneered Clear Red Oak or Northern Birch; glazed Clear "A" double strength glass, plain plate or the beautiful beveled plate glass.

These doors are extra strong and heavy, 1¾ in. thick. We carry these doors in Pine, Oak or Birch for immediate shipment.

We furnish a flat Astragal with each pair of doors, which can be nailed on at center where the doors join.

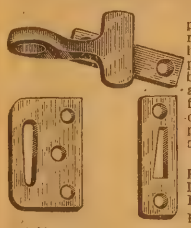
Quality French Doors

French Doors 10-X-310
PRICES PER PAIR

For single French doors take half the price of a pair.

1¾ Inches Thick SIZES Ft. In. x Ft. In.	White Pine	Red Oak	Northern Birch
Glazed Clear Double Strength Glass			
4-0 x 6-8	$21.00	$28.50	$25.50
4-0 x 7-0	22.65	30.15	27.15
5-0 x 6-8	24.00	31.50	28.50
5-0 x 7-0	24.75	32.25	29.25
Glazed Plain Plate Glass			
4-0 x 6-8	$34.44	$41.94	$38.94
4-0 x 7-0	35.94	43.44	40.44
5-0 x 6-8	44.13	51.63	48.63
5-0 x 7-0	44.88	52.38	49.38
Glazed Beveled Plate Glass			
4-0 x 6-8	$45.30	$52.80	$49.80
4-0 x 7-0	46.80	54.30	51.30
5-0 x 6-8	56.10	63.60	60.60
5-0 x 7-0	57.96	65.46	62.46

CASEMENT WINDOW FASTENERS



Cast iron plated; either right or left hand. Size of plate, 2½ in. by ⅝ in. Has a double strike for single sash opening in, or pairs of sash opening out.

4-X-15006. Plate Metal. Lemon Brass Finish. Each ...**30c**

4-X-15007. Plate Metal. Antique Copper Finish. Each.....**30c**

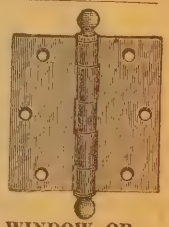
CASEMENT WINDOW ADJUSTER

Made of plated steel rod, ⅜-inch diameter. This adjuster is for sash opening out and will hold the sash at any angle. Two finishes.

4-X-15004. Antique Copper. Each. **42c**

4-X-15005. Lemon Brass. Each... **42c**

ELECTRO PLATED PLANISHED BALL TIPPED BUTTS



Electro Plated Planished. Made of the same grade steel and generally sold as a polished butt. In every sense equal to the high grade butts, except not as finely finished. Furnished with screws to match.

4-X-3505. Antique Copper Finish. 3x3 in. Per pair **38c**

CONCORD. FRENCH WINDOW OR SCREEN DOOR SET

Reversible mortise latch 1⅜ x1¾ inch square hub for 5/16-inch spindle; brass front. Can be set by slide knob, which prevents opening from outside.

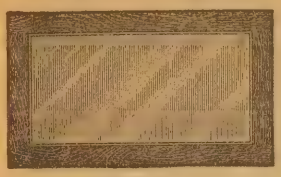
4-X-15012. Lemon Brass Each **$1.50**

4-X-15013. Antique Copper. Each **$1.50**

For other French door and window bolts and locks, see Hardware pages of this book.

Single Sash Transoms and Outside Blinds

Transom Sash



10-X-80

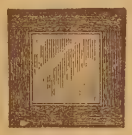
Outside Measure Width Ft.In.	Height In.	Thickness	Price 1 Lgt. Glazed
2- 6 x	10.....	1⅜	$0.99
2- 6 x	12.....	1⅜	1.08
2- 6 x	14.....	1⅜	1.20
2- 6 x	16.....	1⅜	1.38
2- 8 x	10.....	1⅜	1.02
2- 8 x	12.....	1⅜	1.17
2- 8 x	14.....	1⅜	1.35
2- 8 x	16.....	1⅜	1.44
2- 8 x	18.....	1⅜	1.59
2- 8 x	20.....	1⅜	1.68
2-10 x	12.....	1⅜	1.26
2-10 x	14.....	1⅜	1.41
2-10 x	16.....	1⅜	1.53
2-10 x	18.....	1⅜	1.68
2-10 x	20.....	1⅜	1.77
3- 0 x	12.....	1⅜	1.32
3- 0 x	14.....	1⅜	1.47
3- 0 x	16.....	1⅜	1.62
3- 0 x	18.....	1⅜	1.71
3- 0 x	20.....	1⅜	1.98

Attic Sash

10-X-84

Size of Glass Inches	Price Glazed	Outside Measure Ft.In.	Ft.In.
18 x 20..	$1.26	1-10 x	2- 1
20 x 20..	1.42	2- 0 x	2- 1
20 x 24..	1.58	2- 0 x	2- 5
24 x 24..	1.85	2- 4 x	2- 5
24 x 28..	2.03	2- 4 x	2- 9
24 x 30..	2.15	2- 4 x	2-11

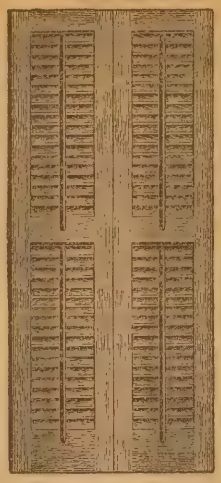
Stall Sash



10-X-83

Size of Glass	Price per Sash Glazed
10" x 12".....	$0.68
10" x 14".....	.72
12" x 14".....	.76
12" x 16".....	.85

All sash are primed in linseed oil. Sash not listed will be quoted on application.



Outside Blinds

Outside Blinds are made in pairs of two half sections and each unit price covers two half sections for the size window listed, so when you order a pair of blinds you get two sections to cover one window opening. Prices listed are for rolling slat outside blinds, not stationary slats.

Blinds for pantry windows, being narrow, may be made in one single piece, or in pairs, and they are priced accordingly, 1 single blind or 1 pair for 1 window opening at prices listed.

They are well manufactured of first class Soft Pine Lumber, accurately machined and are shipped unpainted.

Blinds for windows of ordinary height are made two sections high as per illustration. For any other than ordinary sizes, we reserve the right to make them more or less than two sections in height.

The Column under glass sizes means that these are the sizes of glass of windows for which blinds are intended.

For Blinds with Stationary Slats or Half Stationary and Half Rolling Slats, add 50 per cent to prices in accompanying table.

10-X-94. **For 2-LT. WINDOWS. Blinds 1⅛-Inch Thick**

Size of Glass	Price Pair	Outside Measure Ft.In.	Ft.In.	Size of Glass	Price Pair	Outside Measure Ft.In.	Ft.In.
16 x 20..	$2.22	1- 8 x	3-11	24 x 26..	$2.97	2- 4 x	4-11
16 x 24..	2.64	1- 8 x	4- 7	24 x 28..	3.00	2- 4 x	5- 3
16 x 26..	2.81	1- 8 x	4-11	24 x 30..	3.35	2- 4 x	5- 7
16 x 28..	2.97	1- 8 x	5- 3	24 x 32..	3.54	2- 4 x	5-11
18 x 20..	2.28	1-10 x	3-11	24 x 34..	3.74	2- 4 x	6- 3
18 x 22..	2.69	1-10 x	4- 3	26 x 24..	2.84	2- 6 x	4- 7
18 x 24..	2.69	1-10 x	4- 7	26 x 26..	3.03	2- 6 x	4-11
18 x 26..	2.85	1-10 x	4-11	26 x 28..	3.23	2- 6 x	5- 3
18 x 28..	3.02	1-10 x	5- 3	26 x 30..	3.41	2- 6 x	5- 7
18 x 30..	3.06	1-10 x	5- 7	26 x 32..	3.60	2- 6 x	5-11
20 x 20..	2.31	2- 0 x	3-11	28 x 24..	2.88	2- 8 x	4- 7
20 x 24..	2.67	2- 0 x	4- 7	28 x 26..	3.05	2- 8 x	4-11
20 x 26..	2.85	2- 0 x	4-11	28 x 28..	3.27	2- 8 x	5- 3
20 x 28..	3.06	2- 0 x	5- 3	28 x 30..	3.47	2- 8 x	5- 7
20 x 30..	3.24	2- 0 x	5- 7	28 x 32..	3.66	2- 8 x	5-11
20 x 32..	3.41	2- 0 x	5-11	28 x 36..	4.07	2- 8 x	6- 7
22 x 24..	2.73	2- 2 x	4- 7	30 x 24..	2.93	2-10 x	4- 7
22 x 26..	2.93	2- 2 x	4-11	30 x 26..	3.14	2-10 x	4-11
22 x 28..	3.09	2- 2 x	5- 3	30 x 28..	3.33	2-10 x	5- 3
22 x 30..	3.29	2- 2 x	5- 7	30 x 30..	3.53	2-10 x	5- 7
22 x 32..	3.47	2- 2 x	5-11	30 x 32..	3.72	2-10 x	5-11
24 x 20..	2.73	2- 4 x	3-11	30 x 34..	3.93	2-10 x	6- 3
24 x 24..	2.78	2- 4 x	4- 7	30 x 36..	4.13	2-10 x	6- 7

10-X-95. **FOR 2-LT. PANTRY WINDOWS. Blinds 1⅛-Inch Thick**

Size of Glass	Single or Pair	Outside Measure Ft.In.	Ft.In.	Size of Glass	Single or Pair	Outside Measure Ft.In.	Ft.In.
12 x 20..	$1.44	1- 4 x	3-11	12 x 30..	$1.74	1- 4 x	5- 7
12 x 24..	1.44	1- 4 x	4- 7	14 x 24..	1.50	1- 6 x	4- 7
12 x 26..	1.55	1- 4 x	4-11	14 x 28..	1.70	1- 6 x	5- 3
12 x 28..	1.65	1- 4 x	5- 3	14 x 30..	1.80	1- 6 x	5- 7

10-X-96. **FOR 4-LT. WINDOWS. Blinds 1⅛-Inch Thick**

Size of Glass	Price Pair	Outside Measure Ft.In.	Ft.In.	Size of Glass	Price Pair	Outside Measure Ft.In.	Ft.In.
10 x 20..	$2.33	2- 1 x	3-11	12 x 30..	$3.38	2- 5 x	5- 7
10 x 24..	2.70	2- 1 x	4- 7	14 x 24..	2.91	2- 9 x	4- 7
10 x 26..	2.91	2- 1 x	4-11	14 x 26..	3.11	2- 9 x	4-11
10 x 28..	3.06	2- 1 x	5- 3	14 x 28..	3.30	2- 9 x	5- 3
12 x 20..	2.43	2- 5 x	3-11	14 x 30..	3.50	2- 9 x	5- 7
12 x 24..	2.81	2- 5 x	4- 7	14 x 32..	3.69	2- 9 x	5-11
12 x 26..	3.00	2- 5 x	4-11	15 x 30..	3.56	2-11 x	5- 7
12 x 28..	3.20	2- 5 x	5- 3	15 x 32..	3.77	2-11 x	5-11

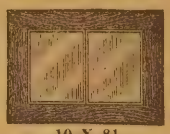
10-X-97. **FOR 8-LT. WINDOWS. Blinds 1⅛-Inch Thick**

Size of Glass	Price Pair	Outside Measure Ft.In.	Ft.In.	Size of Glass	Price Pair	Outside Measure Ft.In.	Ft.In.
8 x 10..	$2.58	1- 9 x	3-11	12 x 14..	$3.18	2- 5 x	5- 3
9 x 12..	2.66	1-11 x	4- 7	12 x 16..	3.56	2- 5 x	5-11
10 x 12..	2.70	2- 1 x	4- 7	14 x 16..	3.96	2- 9 x	5-11
10 x 14..	3.06	2- 1 x	5- 3	14 x 18..	4.05	2- 9 x	6- 7

10-X-98. **FOR 12-LT. WINDOWS. Blinds 1⅛-Inch Thick**

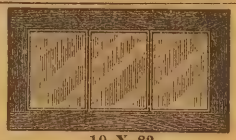
Size of Glass	Price Pair	Outside Measure Ft.In.	Ft.In.	Size of Glass	Price Pair	Outside Measure Ft.In.	Ft.In.
8 x 10..	$2.42	2- 4½ x	3-11	10 x 12..	2.96	2-10½ x	4- 7
9 x 12..	2.57	2- 7½ x	4- 7	10 x 14..	3.35	2-10½ x	5- 3
9 x 14..	3.27	2- 7½ x	5- 3	10 x 16..	3.75	2-10½ x	5-11

Cellar Sash



10-X-81
Two Lights, 1⅜-Inch Thick

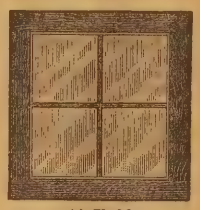
Size of Glass Inches	Price Glazed Single	Db'l.	Outside Measure W'th Ft.In.	H'th In.
10 x 12	$0.90	$1.56	2-1 x	16
10 x 14	.99	1.68	2-1 x	18
10 x 16	1.11	1.98	2-1 x	20
10 x 18	1.17	2.07	2-1 x	22
10 x 20	1.23	2.22	2-1 x	24
12 x 12	.99	1.71	2-5 x	16
12 x 14	1.11	1.98	2-5 x	18
12 x 16	1.20	2.16	2-5 x	20
12 x 18	1.32	2.34	2-5 x	22
12 x 20	1.38	2.49	2-5 x	24
14 x 16	1.35	2.40	2-9 x	20
14 x 18	1.44	2.55	2-9 x	22
14 x 20	1.53	2.76	2-9 x	24



10-X-82
Three Lights, 1⅛-Inch Thick

Size of Glass Inches	Price Glazed Single	Db'l.	Outside Measure W'th Ft.In.	H'th Ft.In.
7 x 9	$0.78	$1.41	2- 1 x	1- 1
8 x 10	.87	1.59	2- 4 x	1- 2
8 x 12	.96	1.74	2- 4 x	1- 4
8 x 14	1.11	2.04	2- 4 x	1- 6
9 x 12	1.02	1.86	2- 7 x	1- 4
9 x 14	1.11	2.04	2- 7 x	1- 6
9 x 16	1.20	2.22	2- 7 x	1- 8
10 x 12	1.11	2.01	2-10 x	1- 4
10 x 14	1.20	2.19	2-10 x	1- 6
10 x 16	1.38	2.61	2-10 x	1- 8
12 x 12	1.26	2.37	3- 4 x	1- 4
12 x 14	1.44	2.67	3- 4 x	1- 6
12 x 16	1.53	2.88	3- 4 x	1- 8
12 x 18	1.71	3.18	3- 4 x	1-10

Barn Sash



10-X-86
Four Lights, 1⅛-Inch Thick, 2-Inch Rail All Around

Size of Glass	Price Glazed
8" x 10".....	$1.05
9" x 12".....	1.23
9" x 14".....	1.38
10" x 12".....	1.32
10" x 14".....	1.47
10" x 16".....	1.77
12" x 14".....	1.74
12" x 16".....	1.92

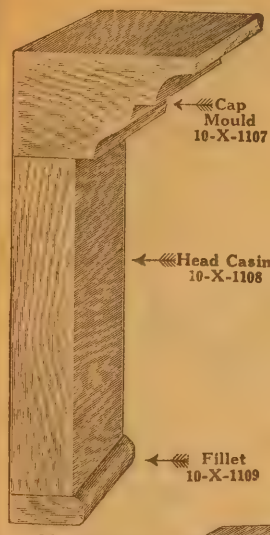
10-X-87
6 Lights. 1⅛ Inch Thick

Size of Glass	Price Glazed
8" x 10".....	$1.41
9" x 12".....	1.71
10" x 12".....	1.83
10" x 14".....	1.97
10" x 16".....	2.12
12" x 16".....	2.51

All sash are primed in linseed oil. Sash not listed will be quoted on application.

See Our Big Savings On Watts Corn Shellers—The World's Best?

Dashing, Slash Grain Douglas Fir Trim

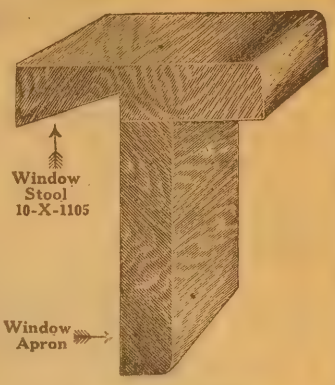


3 Member Cap

Fir Is King—The Continent's Last Stand

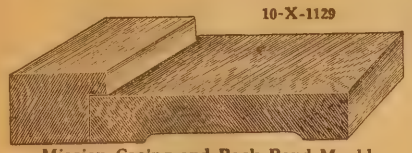
When the Northern White Pine Forests became depleted "Westward-Ho" became the watchword, till now the famous Oregon and Washington Douglas Fir Forests are truly the "Continent's Last Stand."

Different sections of the Pacific Coast produce different species, among which Douglas Fir takes first rank. And since it comes under the heading of Soft Wood it makes also a fine lumber for enamel finish.



Chair Rail 10-X-1112

10-X-1129

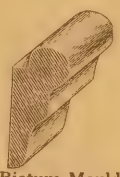


Mission Casing and Back Band Mould

Very Susceptible to Imitative Treatment

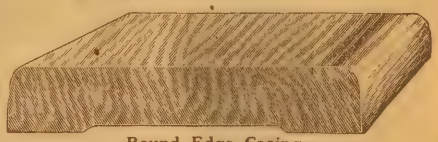
By an ingenious method of combining inexpensive ingredients, the modern chemist produces Rubies and other precious jewels in perfect imitation of the genuine and so may any one, by the use of our various oils and stains, transform the economical and inimitable Douglas Fir finish into an almost exact imitation of higher priced woods such as Rotary Cut Red Oak, Curly Red Birch, Mahogany, Cherry, Rosewood, Fumed and Mission Oak. In fact, any variety of shades almost without limit. And the softer the color, the truer it harmonizes. No other low priced wood lends itself so admirably for this purpose.

Cove Mould



Picture Mould 10-X-1110

Window and Door Stop



Round Edge Casing

PRICES OF FIR TRIM

All prices per lineal feet. Order by number and name

Fir Casings

Back Band Mould priced separately

Number	Name	Size	Price
10-X-1125	Round Edge Casing	¾ x 4¼	$7.00
10-X-1126	Round Edge Casing	¾ x 4¾	8.40
10-X-1127	Mission Casing	¾ x 3½	5.60
10-X-1128	Mission Casing	¾ x 4¼	7.00
10-X-1129	Back Band Mould	1⅛ x 1⅛	3.50

No Base Blocks are needed with Back Band Casing

Fir Base and Mouldings

Number	Name	Size	Price
10-X-1101	Moulded Base	¾ x 7¼	$11.20
10-X-1102	Main Base	¾ x 7¼	11.20
10-X-1104	Base Shoe	½ x ⅞	1.40
10-X-1105	Window Stool	1⅛ x 3¾	9.90
10-X-1106	Window Apron	¾ x 3⅝	5.60
10-X-1107	Cap Mould	1⅛ x 2¼	5.80
10-X-1108	Head Casing	¾ x 4½	7.00
10-X-1109	Fillet Mould	15/16 x 1	1.44
10-X-1110	Picture Mould	¾ x 1¾	2.80
10-X-1111	Cove Mould	⅝ x ⅞	1.40
10-X-1112	Chair Rail	½ x 3½	5.60
10-X-1113	Window Stop	⅝ x 1⅜	1.54
10-X-1114	Door Stop	½ x 1¾	2.80

Fir Base Blocks

1⅛-inch Thick. Order by Number.

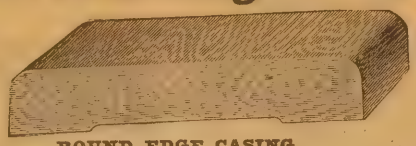
Number	Width	Length	Price
10-X-1130	4½ inches	10 inches	$0.09½
10-X-1131	5 inches	10 inches	.10½

Moulded Base 10-X-1101

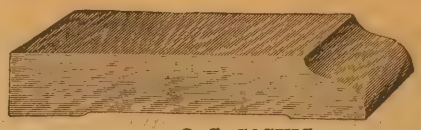
Base Block 10-X-1130 10-X-1131

Base Shoe 10-X-1104 2 Member Base

Modern Designs in Casing and Base Boards

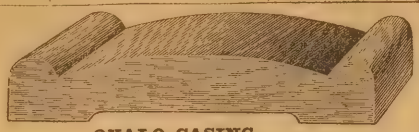


ROUND EDGE CASING



O. G. CASING

No.	Size Inches	Price per 100 lineal feet		No.	Size Inches	Price per 100 lineal feet	
		Yellow Pine	Oak			Yellow Pine	Oak
10-X-8308	¾ x 3⅝	$5.60	$10.90				
10-X-8309	¾ x 4¼	7.00	13.00	10-X-8384	¾ x 4¼	$7.00	$13.00
10-X-8310	¾ x 4¾	8.40	15.60	10-X-8385	¾ x 5¼	8.40	15.60
10-X-8311½	¾ x 5¾	8.90	16.90				



OVALO CASING

MISSION CASING

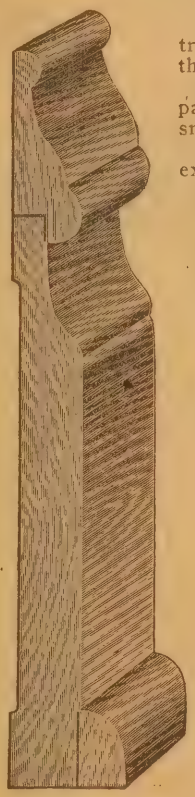
No.	Size Inches	Wood	Prices per 100 lin. feet	No.	Back Band Mold Priced Separately	Size Inches	Prices per 100 lineal feet	
							Yel. Pine	Oak
10-X-8341	¾ x 4¼	Yel. Pine only	$7.00	10-X-1000	Casing	¾ x 3½	$5.60	$10.90
10-X-8342	¾ x 4¾	Yel. Pine only	8.40	10-X-1001	Casing	¾ x 4¼	7.00	13.00
				10-X-1002	Back Band Mold	1⅛ x 1⅛	3.50	6.10

On this and the following pages we illustrate, describe and name extremely low prices on high grade mouldings. The designs illustrated we have found to be the most popular and are used in all modern homes of the present day.

All our mouldings are manufactured from the finest selected woods for oil finish, stain, paint or enamel. The mouldings are run on low speed machines which produce an excellent smooth finish and are kept clean and bright in our mammoth warehouse.

All our moulding is sold in random lengths 8 feet to 16 feet, specified lengths 10% net extra.

Remember that we can furnish special designs made to order. Write us for prices.



3-Member Base
Each member priced separately

O. G. Base

10-X-8426—Molded Base

10-X-1003—Round Edge Base

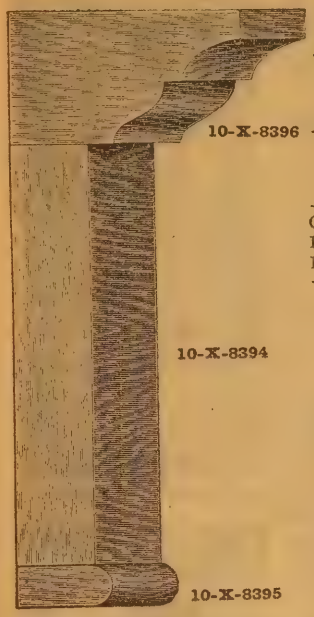
10-X-8420 Base Mold ¾ x 2¼	Yellow Pine	$3.85	10-X-8385 O. G. Base ¾ x 5¼	Yellow Pine Only	$8.40	10-X-8426 Molded Base ¾ x 7¼	Yellow Pine	$11.20	10-X-1003 R. Edge Base ¾ x 7¼	Yellow Pine	$11.20
	Oak	7.15					Oak	20.80		Oak	20.80
10-X-8421 Main Base ¾ x 7¼	Yellow Pine	11.20	10-X-8386 O. G. Base ¾ x 7¼	Yellow Pine Only	11.20						
	Oak	20.80									
10-X-8422 Base Shoe ½ x ¾	Yellow Pine	1.40									
	Oak	2.60									

— SPECIAL NOTE —
All Prices Are For 100 Lineal Feet

REMEMBER—We Can Furnish Special Designs Made to Order. Write Us For Prices!

If our low prices don't convince you—the goods will

Mouldings for an Elegant Interior Finish



3-Member Head Trim

3-Member Head Trim

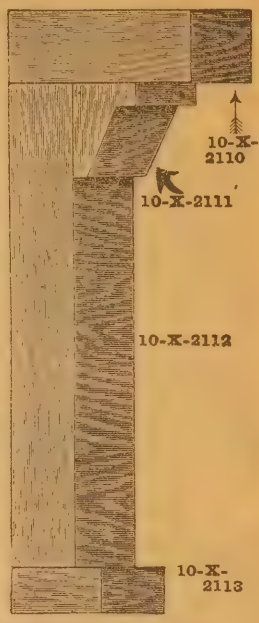
Prices per 100 Lineal Feet

Each member priced separately	Size	Yellow Pine	Oak
Cap Mold, **10-X-8396**.....	1⅛" x 2¼"	$5.80	$10.80
Head Cs'g, **10-X-8394**.....	¾" x 4½"	7.00	13.00
Fillet, **10-X-8395**.....	7/16" x 1 "	1.54	2.85

4-Member Head Trim

Prices per 100 Lineal Feet

Each member priced separately	Size	Yellow Pine	Oak
Cap Mold, **10-X-2110**.....	¾" x 2"	$3.15	$ 5.85
Mission Mold, **10-X-2111**..	⅝" x ¾"	1.40	2.60
Head Cs'g, **10-X-2112**.....	¾" x 4½"	7.00	13.00
Fillet, **10-X-2113**.....	7/16" x 1 "	1.54	2.85



4-Member Head Trim

CHAIR RAIL

Prices per 100 Lineal Feet

Lot No.	Size	Y. Pine	Oak
10-X-8496...	½" x 3½"	$5.60	$9.75

CLOSET HOOK STRIPS

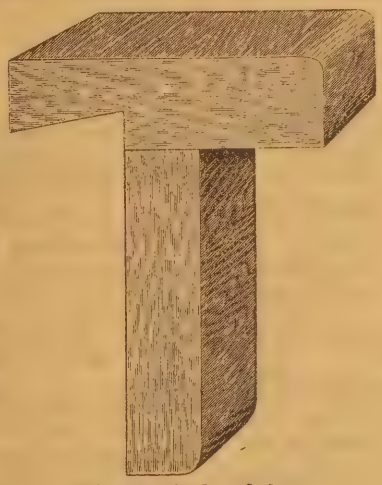
Price on Yellow Pine

Lot Number	Size	Per 100 Lineal Feet
10-X-8234...	¾" x 2½"	$3.85

O. G. DOOR AND WINDOW STOPS

Prices per 100 Lineal Feet

Lot No.	Size	Y. Pine	Oak
10-X-8083...	⅝" x 1⅛"	$1.40	$2.60
10-X-8084...	⅝" x 1⅜"	1.54	2.85
10-X-8085...	⅝" x 1¾"	1.96	3.64
10-X-8096...	½" x 1⅜"	2.10	3.90
10-X-8095...	½" x 1¾"	2.80	5.20
10-X-8093...	½" x 2¼"	3.50	6.50



Window Stool and Apron

WINDOW STOOL
10-X-8267

Prices per 100 Lineal Feet

Size	Yellow Pine	Oak
1⅛" x 3¾"	$9.90	$17.10

WINDOW APRON
10-X-8379

Price per 100 Lineal Feet

Size	Yellow Pine	Oak
¾" x 3¾"	$5.60	$10.90

ROUND EDGE DOOR AND WINDOW STOPS
10-X-1006

Size	Yellow Pine	Oak
½" x 1⅜"	$2.10	$3.90
½" x 1¾"	2.80	5.20

PICTURE MOLD
10-X-8264

Size ¾ x 1¾

Prices per 100 Lineal Feet

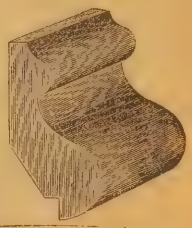
Yellow Pine	Oak
$2.80	$5.20

WAINSCOTING CAP
10-X-8228

Suitable for ½" and ⅝" Wainscoting

Price per 100 Lin. Ft.

Size	Yel. Pine
¾" x 2"	$3.15



COVE OR SCOTIA
10-X-8060

Size, ¾ x ⅞

Price per 100 Lin. Ft.

Yel. Pine	Oak
$1.40	$2.60

10-X-8061

Size, ¾" x 1⅛"

Yel. Pine	Oak
$1.75	$3.25

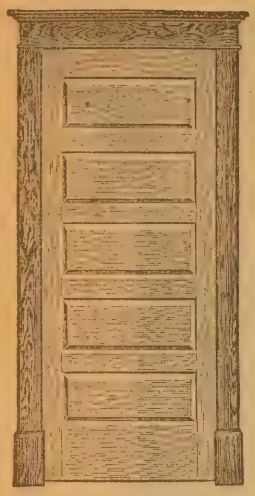
QUARTER ROUND

10-X-8065

Price per 100 Lin. Ft.

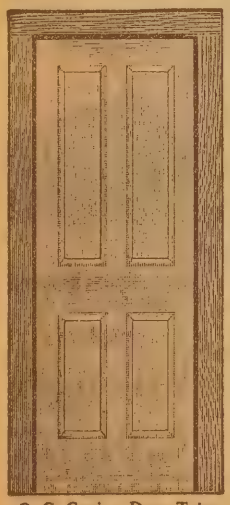
Wood	Size	Price
Yel. Pine	¾"x¾"	$1.40
Fir.....	¾"x¾"	1.40
Oak....	¾"x¾"	2.60

Sides of Door and Window Trim



Three Member Cap Door Trim

Back Band Door Trim



O. G. Casing Door Trim

Below are shown six of the most popular designs of Harris Standard Door and Window Trim. The mouldings used in making up these sets are selected from our stock and are in every respect first class mouldings. They are absolutely clear and run on low speed machines which produce an excellent smooth finish, because we manufacture interior trim from no other kind but strictly clear kiln dried lumber.

Great care is taken in making up this trim so as to properly match together the grain. This trim is furnished in Yellow Pine for oil finish, Clear Red Oak and Douglas Fir.

The prices below are for trim not cut to fit, but moulding is furnished in convenient lengths to avoid shortage in fitting. We would advise that you buy your trim cut to fit; this means that all mouldings will be cut to proper lengths and it will save you time, labor and money. All our trim is carefully packed and bundled to insure reaching you in the best condition.

Three Member Cap Door Trim

Complete with O. G. Stops.

Set consists of **4¼ inch** Casing, **two** Base Blocks, Cap Mold, Head Casing, fillet and the necessary O. G. Stops.

Prices for sizes up to 2 ft. 8 in. 6 ft. 8 in.

No.		Per Set
10-X-914.	Clear Yellow Pine	**$1.98**

This means the best grade of clear Yellow (or Georgia) Pine to be had, no defects permitted; nice, bright, clean, smooth finished stock.

10-X-916.	Clear Red Oak	**$3.65**
10-X-925.	Clear Douglas Fir	**2.01**

Prices up to 3 ft. x 7 ft. 6 in.

10-X-920.	Clear Yellow Pine	**$2.17**
10-X-922.	Clear Red Oak	**3.93**
10-X-927.	Clear Douglas Fir	**2.17**

We can furnish above trim cut to fit and ready to nail in place with 3-member cap nailed together and cap moulding returned the modern way @ 40c extra per side of trim.

Back Band Door Trim

Complete with O. G. Stops.

Set consists of **3½ inch casing.** 1⅛x1⅛ back band and necessary stops.

Price for sizes up to 2 ft. 8 in. by 6 ft. 8 in.

No.		Per Set
10-X-1007.	Clear Yellow Pine	**$1.98**
10-X-1008.	Clear Douglas Fir	**2.01**
10-X-1009.	Clear Red Oak	**3.77**

Prices for sizes up to 3 ft. by 7 ft. 6 in.

10-X-1010.	Clear Yellow Pine	**$2.21**
10-X-1011.	Clear Douglas Fir	**2.21**
10-X-1012.	Clear Red Oak	**4.10**

The above trim furnished Cut to Fit and Ready to Nail in Place at 15c Extra per Side of Trim.

O. G. Casing Door Trim

Complete with O. G. Stops.

Set consists of **4¼ inch** O. G. Casing and Stops in Yellow Pine.

Size up to 2 ft. 8 in. by 6 ft. 8 in.

10-X-975½. For Clear Yellow Pine **$1.54**

10-X-981. Clear Douglas Fir. **$1.54**

10-X-976½. For larger sizes up to 3 ft. by 7 ft. 6 in., add only..**25c**

The above trim furnished cut to fit and ready to nail in place @ 15c extra per side of trim.

Three Member Cap Window Trim

Complete with O. G. Stops.

Set consists of 4¼ inch casing, Cap Mould, Head Casing, fillet, **Stool No. 8267, Apron No. 8379 and O. G. Stops. Your choice of any style casing** we list in **Clear** Yellow Pine, except the two-member Backband casing.

Prices per set for window sizes up to 30x30—2 lights

No.		Per Set
10-X-988.	Clear Yellow Pine	**$2.65**
10-X-990.	Clear Red Oak	**4.85**
10-X-982.	Clear Douglas Fir	**2.65**

Price for window sizes ranging 32x24 to 40x36—2 lights

10-X-996.	Clear Yellow Pine	**$3.14**
10-X-998.	Clear Red Oak	**5.79**
10-X-974.	Clear Douglas Fir	**3.14**

We furnish enough **Cap Mould** to make **returns** on ends, but **do not** mitre them, nor does any one else.

We can furnish above trim Cut to Fit and Ready to Nail in Place, with 3 Member Cap nailed together and Cap Moulding returned—the modern way—at 40c Extra per Side of Trim.

Back Band Window Trim

Complete with O. G. Stops.

Set consists of 3½ inch casing, 1⅛x1⅛ back band, stool No. 8267, apron No. 8379 and necessary stops.

Price for window sizes up to 30x32—2 lights.

No.		Per Set
10-X-1013.	Clear Yellow Pine	**$2.65**
10-X-1014.	Clear Douglas Fir	**2.65**
10-X-1015.	Clear Red Oak	**4.90**

Price for window sizes ranging 32x24 to 40x36—2 lights

10-X-1016.	Clear Yellow Pine	**$2.99**
10-X-1017.	Clear Douglas Fir	**2.99**
10-X-1018.	Clear Red Oak	**5.42**

The above trim furnished Cut to Fit and Ready to Nail in Place at 15c Extra per Side of Trim.

O. G. Casing Window Trim

Complete with O. G. Stops,

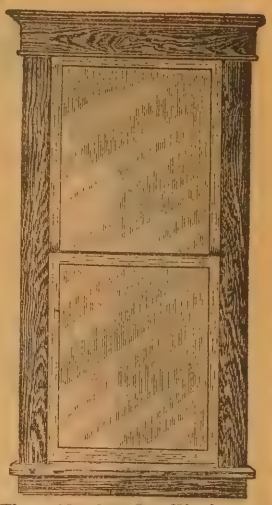
Set **O. G. Casing** Window Trim consists of 4¼ inch O. G. Casing as ordered, Apron, Stool and Stops.

We do not **cope** or **mitre** our O. G. trim. This should be done **on the job** to insure close fitting joints.

No. 10-X-987½.

$2.39 per set for Clear Yellow Pine. This means the best of Clear Yellow Pine. No defects permitted.

The above trim furnished Cut to Fit and Ready to Nail in Place at 15c Extra per Side of Trim.



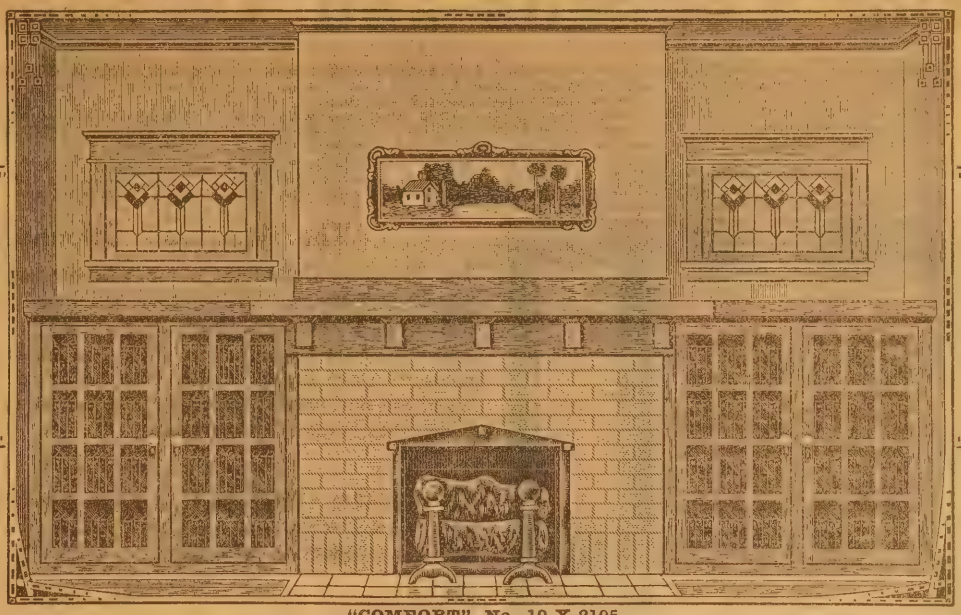
Three Member Cap Window Trim

Back Band Window Trim

O. G. Casing Window Trim

Combination Built-In Book Case and Mantel Shelf

$62.70
Clear Yellow Pine



$65.90
Red Oak or Birch

"COMFORT" No. 10-X-2105

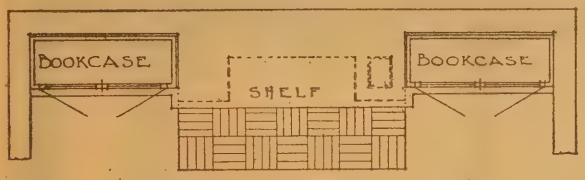
The fast growing demand for Built-in Furniture around the Living Room Fireplace prompted us to design our "Comfort" Combination Bookcases and Mantel Shelf of modern architecture.

The Bookcases are built-in and out of the way; the long mantel shelf stretches across the room, forming an appropriate place on which to set photographs, vases, etc.

The Doors in the Bookcases are divided with wood bars and glazed with clear double strength glass. The inside depth of the bookcases is 10 inches, while the height is 54 inches. The width of each bookcase depends upon the size of the room and the width of your fireplace, ordinarily being about 36 inches to 42 inches for an average sized room.

The Mantel Shelf is 2¾ inches thick and projects over the bookcases and mantel with neat brackets underneath as shown. The bookcases are equipped with shelves.

When ordering give width of entire room; width, depth and height of fireplace.



FLOOR PLAN OF BOOKCASE & MANTEL SHELF

Please bear in mind that the low prices quoted below cover the woodwork only and do not cover any tile, brick, hardware or finishing of any kind.

Sizes and Prices.

Price Consisting of two Bookcases and one Mantel Shelf, as shown in cut and floor plan.

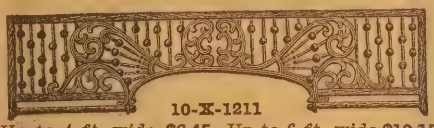
COMFORT No. 10-X-2105 2 Bookcases and Mantel Shelf for Room.	Price, made of Clear Yellow Pine, Glazed Clear Double Strength Glass.	Price, made of Red Oak or Unselected Birch, Glazed Clear Double Strength Glass.
10 Feet Wide	$62.70	$65.90
12 Feet Wide	64.50	67.50
14 Feet Wide	66.95	69.75
16 Feet Wide	69.50	72.50

Artistic Grillwork at Substantial Savings

When you want to liven up a certain arch or opening, you naturally want something that will not only look tasty and refined, but artistic and lively. That's just the effect our Grilles produce. An article of lasting adornment.

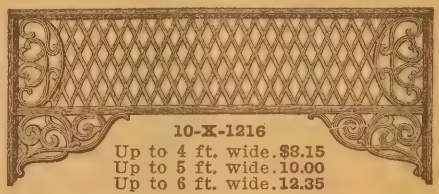
Grilles illustrated below are made in Red Oak, Yellow Pine and Birch. All Grilles under four feet in width take the same price as though they measured four feet, with the exception of No. 10X1220, on which a minimum price up to three feet is listed.

14 Inches



10-X-1211
Up to 4 ft. wide. $6.45 Up to 6 ft. wide. $10.15
Up to 5 ft. wide. 8.45

Four most popular and attractive designs in beautiful grilles



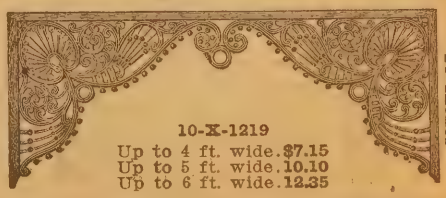
20 Inches

10-X-1216
Up to 4 ft. wide. $8.15
Up to 5 ft. wide. 10.00
Up to 6 ft. wide. 12.35

16 Inches

10-X-1220
Up to 3 ft. wide. $6.10 Up to 5 ft. wide. $10.10
Up to 4 ft. wide. 7.15 Up to 6 ft. wide. 12.35

If kind of wood wanted is not given in your order we will ship Oak



24 Inches

10-X-1219
Up to 4 ft. wide. $7.15
Up to 5 ft. wide. 10.10
Up to 6 ft. wide. 12.35

Interior Columns and Colonnades

On this page and the following pages we try and put before you some of the very latest designs of Colonnades used at the present time. Any of these colonnades will add a tone of refinement and luxury to your home. They can be used in any width of room where openings can be made 7 feet and wider. The very best and most modern buildings of today are considered incomplete unless furnished with stylish and up-to-date colonnades; in fact, any modern home should have at least one of these openings. We manufacture these colonnades from strictly kiln dried Oak, Yellow Pine or Birch, which is carefully selected for this particular class of work.

Our prices in every instance are for the wood named in the white, that is, just as it leaves the woodworkers' hands, not filled or varnished in any way. Should you want any of these colonnades finished in oil or varnished, we can do so at 25 per cent extra. Prices shown do not include base board, casing or cap trim. This should be ordered separately and should match up the balance of the trim in your home.

"MORRISON"
No. 10-X-1249-1252

The "Morrison" Colonnade

The Morrison Colonnade is made of the very best selected woods and the workmanship is excellent. The pedestals project 2 feet from the jamb, they are 2 feet high and about 11½ inches on face, made to fit over a 5½ inch jamb. The columns are 6 inches in diameter and have a plain turned wood cap and base. The room base can be used around the pedestal as shown in illustration.

PRICES

No. 10-X-1249. Morrison Colonnade, 9 feet wide by 9 feet high or smaller, furnished in Clear Yellow Pine in the natural wood (not oiled or varnished).

Price **$25.50**

No. 10-X-1252. Morrison Colonnade, 9 feet wide by 9 feet high or smaller, furnished in Oak or Birch in the natural wood (not oiled or varnished).

Price **$31.75**

NOTE: FOR EACH ADDITIONAL FOOT, EITHER IN WIDTH OR HEIGHT, ADD $2.00

Unusually Well Made

State Size and Finish

Built-up Interior Columns, Sanded Finish

10-X-1250. Round Columns with Wood Cap and Base.

Dia. Hgt.	Price Y. P.	Price Oak
6"x6'..	$ 7.88	$ 9.00
6"x7'..	8.50	9.98
6"x8'..	9.24	10.29
7"x6'..	9.24	10.50
7"x7'..	10.50	11.76
7"x8'..	11.76	13.20

10-X-1251. Round Columns with Composition Cap.

Dia. Hgt.	Price Y. P.	Price Oak
6"x6'..	$11.03	$13.86
6"x7'..	11.66	14.70
6"x8'..	12.39	15.00
7"x6'..	13.65	15.25
7"x7'..	14.90	16.30
7"x8'..	16.20	17.80

10-X-1296. Square Columns with Wood Cap and Base.

Size at Base Hgh.	Price Y.P.	Price Oak
6"x6'..	$ 8.71	$ 9.98
6"x7'..	9.34	10.95
6"x8'..	10.18	11.36
7"x6'..	10.18	11.60
7"x7'..	11.70	12.70
7"x8'..	12.75	14.40

"BELLEVIEW"
No. 10-X-1256

The Belleview Colonnade is the same as our Morrison No. 10-X-1249-1252, shown above, excepting that the caps on the columns are composition, material Scammozzi design; the balance of the colonnade is similar to the Morrison in every respect.

PRICES

No. 10-X-1256. Belleview Colonnade, 9 feet wide by 9 feet high, or smaller, furnished in Clear Yellow Pine, in the natural wood (not oiled or varnished). Price..... **$30.65**

No. 10-X-1258. Belleview Colonnade, 9 feet wide by 9 feet high, or smaller, furnished in Oak or Birch in the natural wood (not oiled or varnished). Price..... **$36.85**

Note: For each additional, either in width or height, add $2.00.

Elegant and Impressive Colonnades

The Colonnades illustrated on this page are considered the very latest in both style and design. These colonnades are not only attractive but also serve as a wall to divide floor space between rooms. Like all other cabinet work manufactured by us, these colonnades are made of a selected grade of lumber, which is thoroughly kiln dried before going to the machines for manufacture. The very latest equipment which is installed in our factory enables us to complete this cabinet work in such a manner that without a doubt will prove satisfactory to anyone.

We can furnish these colonnades in Clear Red Oak, Yellow Pine or Birch as described below. Our price in every instance is for the wood named in the white—that is, just as it leaves the woodworkers' hands, not filled or varnished in any way. Should you want any of these colonnades finished in oil or varnished, we can do so at 25% extra. Prices shown do not include casing or cap trim. This should be ordered separately and should match up the balance of the trim in your home.

The "Kenmore" Colonnade

The Kenmore Colonnade is a modern colonnade which will add big improvement to any home. The pedestals project 2 feet from the jamb; they are 2 feet high and about 11½ inches on face, made to fit over a 5½ inch jamb. The columns are 6 inches in diameter and have a plain wood cap and base. The room base can be used around the pedestals as shown in illustration. Prices shown do not include base board, casing or cap trim. This should be ordered separately and should match up the balance of trim in your home.

PRICES

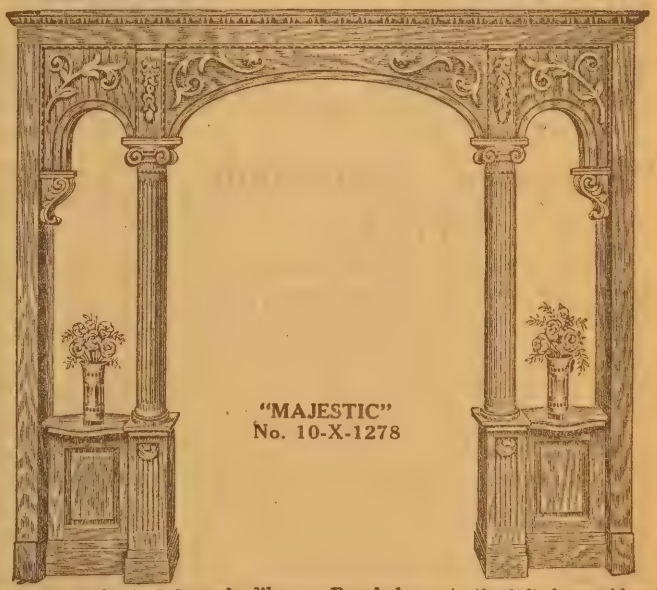
No. 10-X-1293. Kenmore Colonnade 9 feet wide by 9 feet high or smaller, furnished in Clear Yellow Pine in the natural wood (not oiled or varnished).
Price **$25.50**

No. 10-X-1294. Kenmore Colonnade 9 feet wide by 9 feet high or smaller, furnished in Oak or Birch in the natural wood (not oiled or varnished).
Price **$31.75**

NOTE: FOR EACH ADDITIONAL FOOT EITHER IN WIDTH OR HEIGHT ADD $2.00.

"KENMORE"
No. 10-X-1293

"ROYAL"
No. 10-X-1291



"MAJESTIC"
No. 10-X-1278

The Royal Colonnade illustrated above represents the most modern type of cabinet work. It is well proportioned and correct in every detail, and every part is an achievement from the handsomely fluted column to the smallest carving.

SPECIFICATIONS. The pedestals below the columns are 7 inches square and the paneling is 30 inches high from the floor to the top of the shelf and 17 inches wide from jamb to column. The fluted columns are 6 inches in diameter at the base. The beams are 4 inches thick and drop 3 feet 8 inches from bottom of bracket.

PRICES

No. 10-X-1291. Royal Colonnade 9 feet wide by 9 feet high or smaller, furnished in Oak, Birch or Yellow Pine in the natural wood (not oiled or varnished). Price..... **$73.75**

For wider than 9 feet add $3.00 extra for each additional foot. For higher than 9 feet add $2.00 extra for each additional foot. If filled, shellacked and varnished, or stained Mahogany or Mission add $9.00.

Special Note—The above prices do not include jambs, casing, base blocks or cap trim. For such see preceding pages.

This Majestic Colonnade, like our Royal shown to the left, is considered one of the most modern colonnades. If you have a blank opening between the rooms in your home, fill it with one of these colonnades and make a mansion out of your place of abode.

SPECIFICATIONS: The pedestals below the columns are 7 inches square and the fluted columns are 6 inches in diameter at base. The thickness of the center arch is 4½ inches, while the drop is 6 inches. The drop on the sides is 34 inches.

PRICES

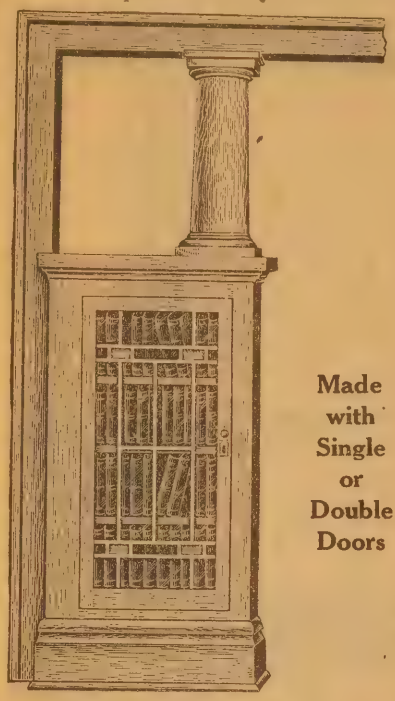
No. 10-X-1278. Majestic Colonnade 9 feet wide by 9 feet high or smaller, furnished in Oak, Birch or Yellow Pine in the natural wood (not oiled or varnished). Price..... **$75.65**

For wider than 9 feet add $3.00 extra for each additional foot. For higher than 9 feet add $2.00 extra for each additional foot. If filled, shellacked and varnished, or stained Mahogany or Mission add $9.00 net.

Special Note—These prices do not include jambs, casing, base blocks or cap trim. See preceding pages.

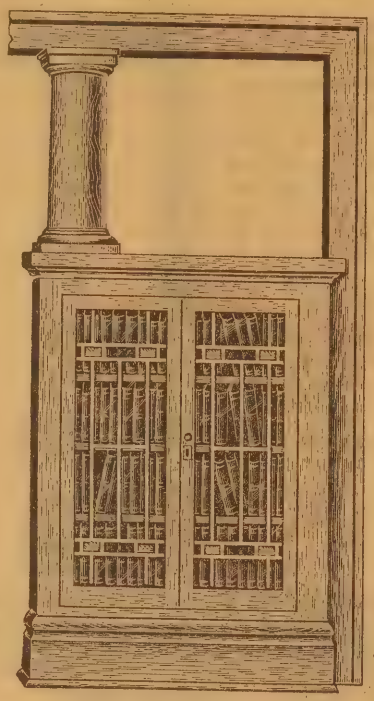
Modern Artistic Bookcase Colonnades

These elegant bookcase colonnades have been designed to embody a splendid ornamental effect with a feature of utility that will appeal to you. Ordinarily colonnades are intended to serve as a wall to divide floor space in rooms—a doorless portal of exceptional width to give the impression of area which one room borrows from another. These two designs give you every advantage of the ordinary colonnade and in addition they will serve as a piece of useful furniture as well.



10-X-2101. Single Door

Made with Single or Double Doors



10-X-2102. Double Door

"Eleanor" Colonnade

$62.95

Made with Leaded Glass Doors

This impressive colonnade is made complete with single or double artistic leaded glass bookcase doors. Finished in figured clear yellow pine, clear figured solid oak or birch. The material used is the best—every piece selected for its grain and color. Finest workmanship, perfectly joined and fitted throughout. The doors are properly constructed to prevent sagging or binding. The columns are 7½ in. in diameter and have a turned wood cap and base. The reverse side of the bookcase compartment facing the dining room will harmonize very nicely with new, modern design of wall panelling, finished with two vertical veneered panels the same height as the doors.

10-X-2101. "Eleanor" colonnade with single door pedestals to be used in an opening measuring not less than 8 ft. wide and up to 9 ft. high. Pedestals measure over-all 2 ft. 4 in. wide, 4 ft. 9 in. high and 11 in. deep.

Prices not including hardware:

Clear yellow pine (not oiled or varnished) with leaded glass doors.
Price **$62.95**

Clear oak, or birch (not oiled or varnished) with leaded glass doors.
Price **$65.95**

Average shipping weight, 300 lbs.

10-X-2102. "Eleanor" colonnade with double door pedestals to be used in an opening measuring not less than 9 ft. 6 in. wide and up to 9 ft. high. Pedestals measure over-all 3 ft. 4 in. wide, 4 ft. 9 in. high and 11 in. deep.

Prices not including hardware:

Clear yellow pine (not oiled or varnished) with leaded glass doors.
Price **$71.85**

Clear oak or birch (not oiled or varnished) with leaded glass doors.
Price **$73.85**

Average shipping weight, 350 lbs.

"Florence" Colonnade

$57.75

Made with Divided Light Doors

This striking "Craftsman" style colonnade will give your rooms a rich and trim appearance. The square columns are neither too large or too small to harmonize with the pedestals. Made complete with single or double glass doors divided in square lights with neat wood strips which carry out the massive, square, straight line effect. The pillars are 7½ in. in diameter and have plain wood caps and bases. The reverse side of the bookcase compartments which face the dining room are finished with two vertical veneered panels the same height as the doors, designed to harmonize with standard wall panellings.

10-X-2103. "Florence" colonnade with single door pedestals to be used in an opening any width measuring not less than 8 ft. and up to 9 ft. high. Pedestals measure over-all 2 ft. 4 in. wide, 4 ft. 9 in. high and 11 in. deep.

Prices not including hardware:

Clear yellow pine (not oiled or varnished) with glass doors.
Price **$57.75**

Clear oak or birch (not oiled or varnished) with glass doors.
Price **$59.85**

Average shipping weight, 300 lbs.

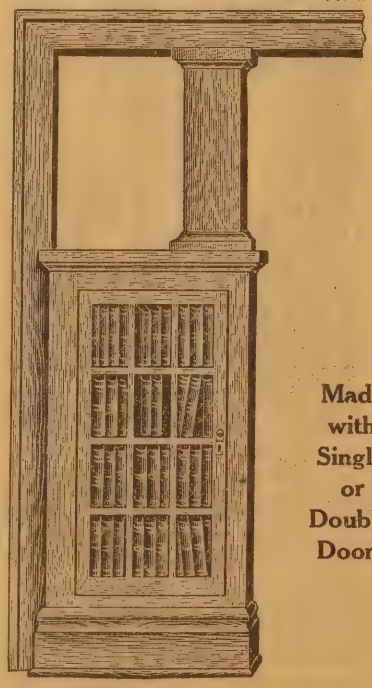
10-X-2104. "Florence" colonnade with double door pedestal to be used in an opening of any width measuring not less than 9 ft. 6 in. wide and up to 9 ft. high. Pedestals measure over-all 3 ft. 4 in. wide, 4 ft. 9 in. high and 11 in. deep.

Prices not including hardware:

Clear yellow pine (not oiled or varnished) with glass doors.
Price **$62.75**

Clear oak or birch (not oiled or varnished) with glass doors.
Price **$64.75**

Average shipping weight, 325 lbs.



10-X-2103. Single Door

Made with Single or Double Doors

10-X-2104. Double Door

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Well-Designed Buffets at Low Prices

More real solid comfort and modern convenience is derived from a well designed, strongly built, roomy buffet than any other article of furniture, no matter if such article be used for mere show or expressly required for service. For displaying China and glass ware, the buffets illustrated below present pleasing backgrounds.

Our Blackstone and Biltmore Buffets are not only convenient because of their labor-saving utility, but are permanent furniture of incomparable beauty. Both designs on this page harmonize with practically any modern interior decorations and while the cost is so reasonable, no home owner will find it prohibitive.

The material used to manufacture these buffets is carefully selected from thoroughly dried stock. A point not to be overlooked is that these designs may be used in old as well as new buildings. Of course, they are also used extensively in new apartment buildings and dwellings, in fact, most new homes are furnished with built-in furniture wherever its use is possible.

"Blackstone" Buffet

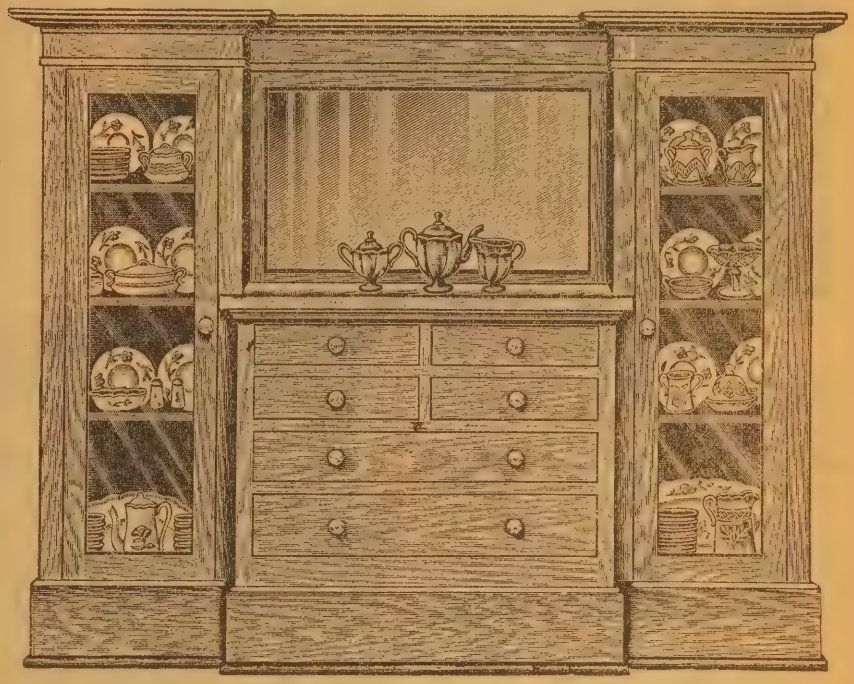
This buffet is made of either Clear Yellow Pine or Selected Oak, thoroughly kiln dried. The extreme width of this buffet is 5 feet, 6 feet or 7 feet wide, as described below. All buffets are made 5 feet 6 inches high overall and the center, which is the drawer section is 16 inches deep and the two end sections 12 inches deep. The doors are glazed with strictly clear double strength glass. Be careful to give exact correct size if you want to build it in an offset in the wall, which should not be over 12 inches deep. Note that the mirror sets back against the wall the same as on our regular sideboards.

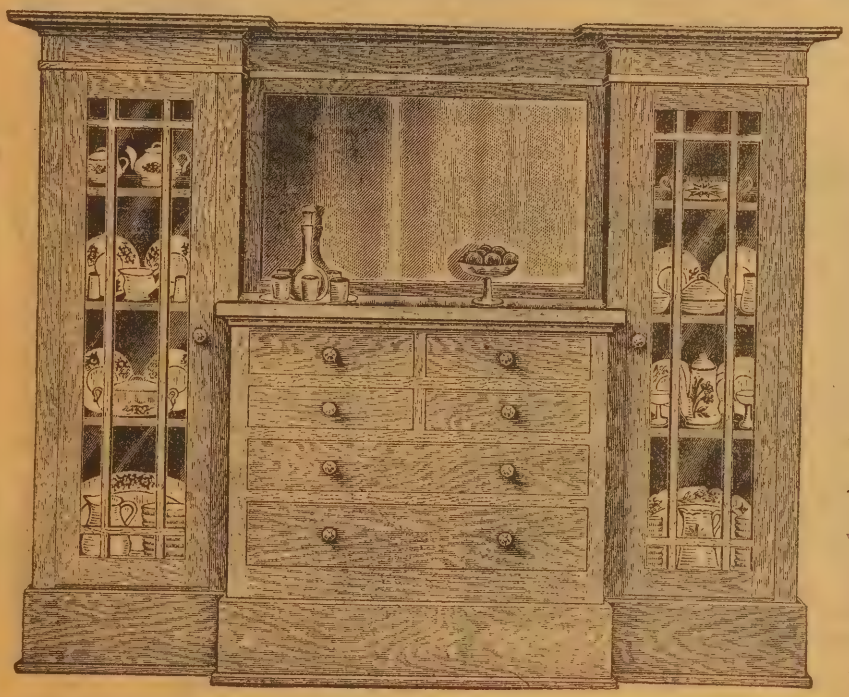
Shipped complete as shown, ready to set in place. No hardware or finishing included. Hardware can be selected from this catalog to match your other hardware.

Prices of Blackstone Buffet with Double Strength Glass in doors, as shown, and Plain Plate Mirror, not Beveled.

Catalog No.	Sizes	Wood	Price
10X713	5 ft.x5 ft. 6 in.	Yellow Pine	$67.50
10X714	6 ft.x5 ft. 6 in.	Yellow Pine	69.50
10X715	7 ft.x5 ft. 6 in.	Yellow Pine	71.50
10X718	5 ft.x5 ft. 6 in.	Oak or Birch	69.50
10X719	6 ft.x5 ft. 6 in.	Oak or Birch	72.50
10X720	7 ft.x5 ft. 6 in.	Oak or Birch	74.50

When ordering, do not fail to state catalog number, size and kind of wood wanted. Intermediate sizes take price of next larger size. If Beveled Plate Mirror is wanted instead of Plain, add $2.00.





"Biltmore" Buffet

Our Biltmore Buffet is similar to our Blackstone Buffet except that the doors are divided by wood bars, as shown in illustration; the balance of description is the same as our Blackstone. This buffet, like all our other cabinet work, is of the very best quality and workmanship throughout.

If you want a sideboard that not only does not take up too much room, but will also serve as a permanent piece of furniture, we suggest that you order one of these two shown on this page. Shipped complete as shown, ready to set in place, no hardware or finishing included. Hardware can be selected from this catalog to match your other hardware.

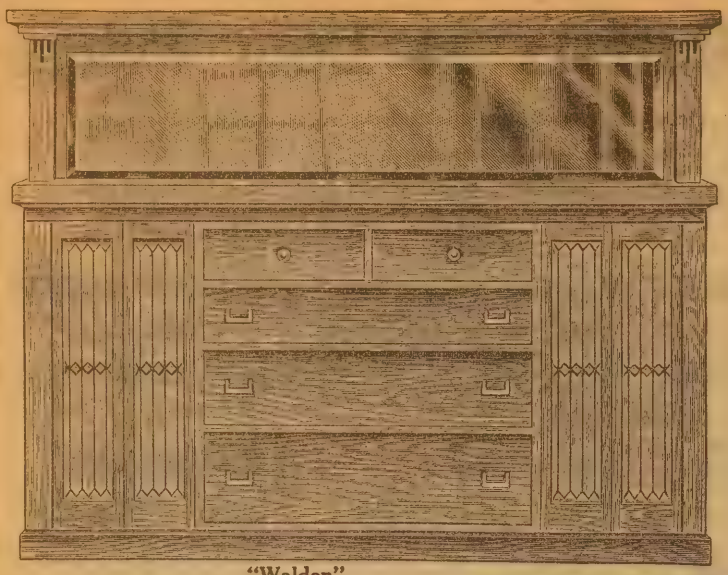
Prices of Biltmore Buffet with Double Strength Glass in doors, as shown, and Plain Plate Mirror, not beveled.

Catalog No.	Sizes	Wood	Price
10X2114	5 ft.x5 ft. 6 in.	Yellow Pine	$70.50
10X2115	6 ft.x5 ft. 6 in.	Yellow Pine	72.50
10X2116	7 ft.x5 ft. 6 in.	Yellow Pine	73.50
10X2117	5 ft.x5 ft. 6 in.	Oak or Birch	72.50
10X2118	6 ft.x5 ft. 6 in.	Oak or Birch	75.50
10X2119	7 ft.x5 ft. 6 in.	Oak or Birch	77.50

When ordering, do not fail to state catalog number, size and kind of wood wanted. Intermediate sizes take price of next larger size. If Beveled Plate Mirror is wanted instead of Plain, add $2.00.

Very Latest Buffets

On this page we show some of the very latest in modern and up-to-date buffets. Our Walden, Astoria and Fernwood are three of the most popular designs ever offered. They are built along simple yet very attractive lines, particular attention being paid to proper and convenient arrangement of doors and drawers. These new Craftsman Buffets are made to set out of the wall, the ends being nicely finished and the back is closed. Like all our cabinet work, the material used in these buffets is carefully selected from thoroughly dried stock.



"Walden"

WALDEN BUFFET

Specifications: The width, 6 feet and 7 feet, specified below, is the measurement overall, while the depth is 16 inches from front to the back. The height is 3 feet and 6 inches from floor to top of countershelf and the extreme height overall is 5 feet and 2 inches.

All buffets are shipped complete as shown, ready to set in place, no hardware or finishing included. Hardware can be selected from this catalog to match your other hardware.

PRICES

Catalog No.	Width	Height Overall	Depth	Wood	Price
10-X-1375..	6 feet	5 feet 2 inches	16 in.	Yellow Pine	$79.50
10-X-1376..	6 feet	5 feet 2 inches	16 in.	Oak or Birch	81.50
10-X-1377..	7 feet	5 feet 2 inches	16 in.	Yellow Pine	82.50
10-X-1378..	7 feet	5 feet 2 inches	16 in.	Oak or Birch	84.50

Above prices are for "Walden" as shown in cut, with doors glazed Leaded Crystal Glass and including Bevel Plate Mirror. For prices on intermediate sizes take price of next larger size.

ASTORIA BUFFET

Our Astoria is very attractive, colonial design with plenty of drawer room and two neat cupboard spaces for china and glassware.

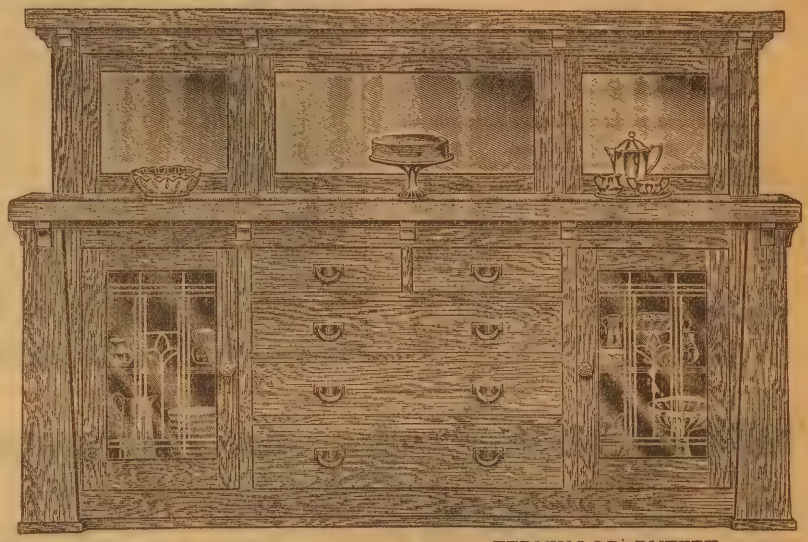
Specifications: The width 6 feet and 7 feet specified below is the measurement overall, while the depth is 18 inches from front to the back. The height is 3 feet and 6 inches from floor to top of countershelf and the extreme height overall is 5 feet and 2 inches.

All buffets are shipped complete as shown, ready to set in place, no hardware or finishing included. Hardware can be selected from this catalog to match your other hardware.

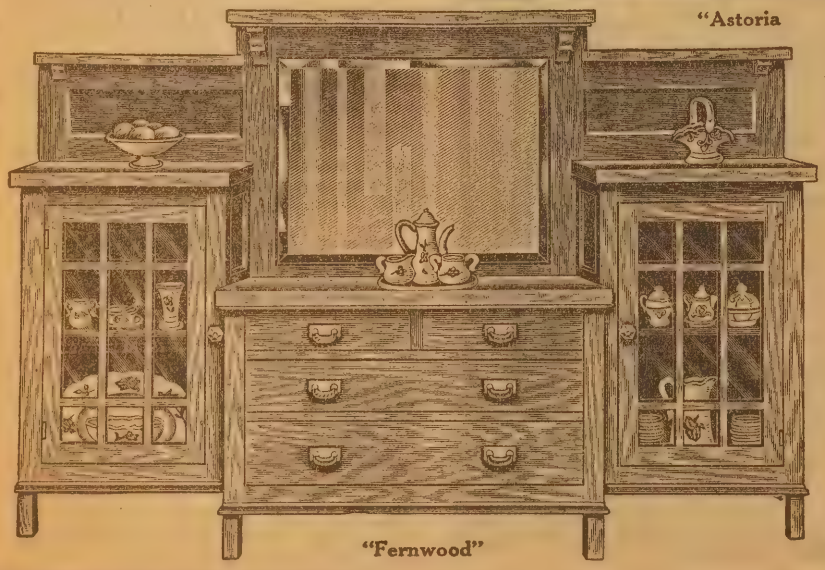
PRICES

Cat. No.	Wd.	Height Overall	Dpt.	Wood	Price
10-X-2120	6′	5′2″	18″	Yellow Pine	$81.50
10-X-2121	6′	5′2″	18″	Oak or Birch	83.50
10-X-2122	7′	5′2″	18″	Yellow Pine	84.75
10-X-2123	7′	5′2″	18″	Oak or Birch	86.75

Above prices are for "Astoria" as shown in cut, with doors glazed Leaded Crystal Glass and including Plain Plate Mirror. For prices on intermediate sizes take price of next larger size.



"Astoria



"Fernwood"

FERNWOOD BUFFET

Our "Fernwood" Buffet was designed especially for Dining Rooms where both space and convenience is required, yet it is very attractive and will prove an ornament to any home. It can be installed in old or new homes without any alteration, as it sets out from the wall.

Specifications: The width, 6 feet and 7 feet, specified below is the measurement overall. The drawer section below the mirror is 18 inches deep, while each bookcase section is about 14 inches deep. The height is 2 feet and 10 inches from floor to the top of countershelf, and the extreme height overall is 5 feet and 2 inches.

All buffets are shipped complete as shown, ready to set in place, no hardware or finishing included. Hardware can be selected from this catalog to match your other hardware.

PRICES

CatalogNo.	Width	Height Overall	Wood	Price
10-X-2138	6 feet	5 feet 2 in.	Yellow Pine	$74.50
10-X-2139	6 feet	5 feet 2 in.	Oak or Birch	76.50
10-X-2140	7 feet	5 feet 2 in.	Yellow Pine	78.50
10-X-2141	7 feet	5 feet 2 in.	Oak or Birch	80.50

Above prices are for "Fernwood" as shown in cut with doors glazed Clear Double Strength Glass and including Bevel Plate Mirror. We can furnish this buffet with leaded glass in doors. Write for special prices. For prices on intermediate sizes, take price of next larger size.

Modern Built-in Conveniences

This Linen Cabinet for **$24.50**

Made of Either **Yellow Pine** or **Oak**

Three Pieces for **$51.75**

Linen Cabinet

Here is a built-in Linen Cabinet that is needed in almost every home. It has very large drawers and ample space for linens. This linen cabinet is built up to 3 feet wide, 2 feet 6 inches deep and is made to line up with 6 feet 8 in. or 7 foot doors. Price includes drawers, drawer case, two top doors, 2 shelfs and cleats, trim and jambs on which to hang doors. Shipped all ready to set in wall.

No. 10-X-2145. Linen Cabinet, Clear Yellow Pine (not oiled or varnished) and no hardware included. Price..... **$24.50**

No. 10-X-2146. Linen Cabinet, Clear Oak (not oiled or varnished) and no hardware included. Price..... **$27.50**

Breakfast Alcove

Like all other articles of built-in furniture, our Breakfast Alcove combines usefulness, beauty and convenience. It saves the housewife many trips to the Dining Room. Price includes two seats and one table for opening 6 feet wide and 4 feet deep. The height from floor to top of seat back is 3 feet 6 inches. It is made from strictly clear lumber, sand papered and ready for finish. Shipped all put together as shown. Shipping weight, 200 lbs.

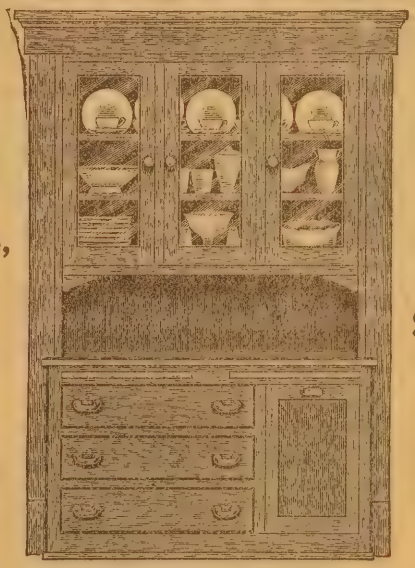
PRICES

No. 10-X-2148. Breakfast Alcove as described above. Oak or Birch..... **$51.75**

No. 10-X-2149. Breakfast Alcove as described above. Clear Yellow Pine..... **$57.85**

This Sideboard for **$61.50**

Yellow Pine, Oak or Birch



This Cabinet for **$48.75**

"Ravenswood" Sideboard

This beautiful cabinet is built to set in recess and furnished 5 feet and 6 feet wide, 14 inches deep; made to line up with 6 feet 8 inch or 7 foot doors. Prices include leaded glass doors as shown, plain mirror and necessary trim.

No. 10-X-800. Ravenswood Sideboard, 5 feet wide and 6 feet 8 inchs or 7 feet high, Clear Yellow Pine (no hardware, oil or varnishing included). Price..... **$61.75**

No. 10-X-801. Same size as above, Red Oak..... **$63.75**

No. 10-X-803. Ravenswood Sideboard, 6 feet wide and 6 feet 8 inches or 7 feet high, Clear Yellow Pine (no hardware, oil or varnishing included). Price..... **$68.75**

No. 10-X-804. Same size as above, Red Oak..... **$70.50**

If to extend into room with sides exposed, add $2.00 for Yellow Pine and $2.50 for Oak. For Beveled Plate Mirror add $2.50.

Kitchen Cabinet and Sideboard

Our Elgin Combination Kitchen Cabinet and Sideboard fills a long-felt want. Above is plenty of shelf space, below are three large drawers and a large flour bin. This cabinet is built to set in recess 5 feet and 6 feet wide and made to line up with 6 feet 8 inches or 7 foot doors. The top section is 14 inches deep, while the bottom section is 20 inches deep. Prices include glass and necessary trim.

No. 10-X-744. Elgin Cabinet, 5 feet wide and 6 feet 8 inches or 7 feet high, Clear Yellow Pine (no hardware, oil or varnishing included). Price..... **$48.75**

No. 10-X-745. Same size as above, Oak or Birch..... **$52.60**

No. 10-X-746. Elgin Cabinet, 6 feet wide and 6 feet 8 inches or 7 feet high, Clear Yellow Pine (no hardware, oil or varnishing included). Price..... **$50.75**

No. 10-X-747. Same size as above, Oak or Birch..... **$54.75**

If to extend into room with sides exposed, add $2.00 for Yellow Pine and $2.50 for Oak.

Built-In Cabinets, Cupboards and Tables

Medicine Cabinet

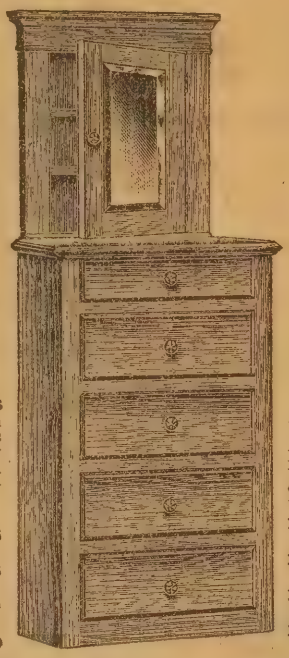
$9.75

Specifications: Size of door 1 foot 6 inches wide by 1 foot 10 inches high. Depth of case in wall 4½ inches, opening in wall 1 foot 8 inches wide by 2 feet high. Size of mirror 14 inches by 18 inches. Adjustable wooden shelves, furnished with casing, head trim, etc., as shown in illustration. No hardware or finishing included.

No. 10-X-851. Yellow Pine. Glazed with Plain Plate Mirror. ..... **$ 9.75**
No. 10-X-852. Yellow Pine, Glazed with Bevel Plate Mirror. Price..... **10.75**
No. 10-X-853. Oak or Birch, Glazed with Plain Plate Mirror. Price..... **10.50**
No. 10-X-854. Oak or Birch, Glazed with Bevel Plate Mirror. Price..... **11.50**

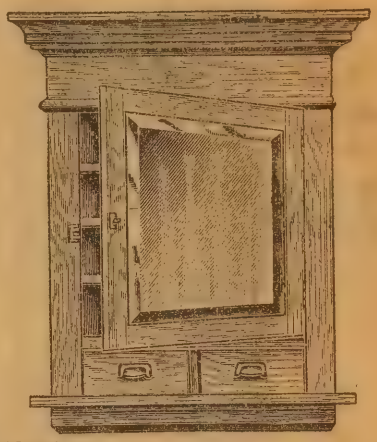
Combination Medicine Case and Bath Cabinet

$26.50



Medicine Cabinet

$11.95



Specifications: Size of Door 1 foot 6 inches wide by 1 foot 10 inches high. Opening in wall 1 foot 8 inches wide by 2 feet 6 inches high. Depth of case in wall 4½ inches. Adjustable wooden shelves, furnished with casing, head trim, drawers, etc., as shown in illustration. No hardware or finishing included.

No. 10-X-889. Yellow Pine. Glazed with Plain Plate Mirror. Price..... **$11.95**
No. 10-X-890. Yellow Pine, Glazed with Bevel Plate Mirror. Price..... **12.70**
No. 10-X-892. Oak or Birch, Glazed with Plain Plate Mirror. Price..... **12.80**
No. 10-X-893. Oak or Birch, Glazed with Bevel Plate Mirror. Price..... **13.55**

When we designed this Combination Bathroom Cabinet we had in mind the homes that required not only additional space, but convenience as well. This cabinet, like all others shown in this catalog, is of the very best quality material, which is especially selected for this class of work. The one small drawer and four large drawers below are just the thing for towels and toilet articles of all kinds.

Specifications: Lower section containing drawers is 12 inches deep, 24 inches wide and measures 4 feet from the floor and has both ends finished to extend into room. Upper section is the same as our No. 10-X-851 Medicine Cabinet; size of mirror is 14 inches wide and 18 inches high. No hardware or finishing included.

No. 10X-891. Yellow Pine, Glazed Bevel Plate Mirror. Price..... **$26.50**
No. 10X-891A. Oak or Birch, Glazed Bevel Plate Mirror. Price..... **28.50**

Drawer or Pantry Cases $9.75

This Drawer Case can be used in pantries, closets, etc. It is made with three large drawers as shown, made of Clear Yellow Pine and Oak, not painted or varnished, but smoothed, ready for any finish to match your woodwork. This case measures 3 feet wide, 2 feet 10 inches high and 1 foot 4 inches deep. The sides and back are not sealed.

No. 10-X-908. Clear Yellow Pine..... **$ 9.75**
No. 10-X-909. Clear Red Oak..... **10.75**
Shipping weight 70 pounds.

Modern Kitchen Table $25.50

Usefulness more than beauty is the requirement for Kitchen Furniture. This Kitchen Table is useful and will save the housewife many trips to the pantry. Is made to order in Yellow Pine or Oak, 4 feet 6 inches wide, 2 feet 10 inches high and 20 inches deep. Four convenient drawers, roomy utensil cupboard, large capacity tilting flour bin and chopping board. No hardware or finishing included.

No. 10-X-912. Yellow Pine..... **$25.50**
No. 10-X-912. Oak or Birch..... **26.50**

A Page for the Handy Man

10-X-201

10-X-204

China Closets and Book Case Doors

In these four designs, we offer a choice from which any one building his own china closet can make a satisfactory selection. No. **10-X-201** is glazed clear glass, and Nos. **10-X-204** and **10-X-202** are glazed with Leaded Crystal Glass. No. **10-X-203** is exceptionally artistic and is a combination of a rich color in the design only, with a clear glass background. Just enough color to make it look pretty and desirable for either china closet or bookcase doors.

Our China Closet Doors are made 1⅛-inch thick and furnished in either clear Yellow Pine or Red Oak.

Prices on China Closet Doors
Clear Yellow Pine

SIZES	10-X-201	10-X-204	10-X-202	10-X-203
1-6 x 3-0	$2.45	$3.95	$3.98	$4.00
1-8 x 3-4	2.75	4.80	4.85	4.90
1-6 x 4-0	2.85	5.25	5.30	5.35
1-8 x 4-0	3.10	5.85	5.90	5.95

For Red Oak Wood add 60c extra each Door

Important: All Glass in the above doors set in with wood stops.

10-X-202

10-X-203

10-X-222

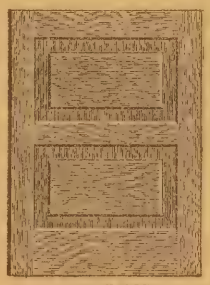
High Quality Cupboard Doors

Our Cupboard Doors are of the neatest design and excellent workmanship. These doors are manufactured from the finest grade of seasoned lumber and we guarantee that they will not warp or check in any way. With these doors it will be very easy to construct a simple design of cabinet and the cost of the entire cabinet can thus be kept within a very low figure. The doors are made of Clear Yellow Pine with a beautiful grain. We carry these doors in stock in two thicknesses, ⅞ inch and 1⅛ inches. Be sure to specify thickness when ordering as this is very important.

10-X-222

Prices on Cupboard Doors
10-X-222 and 10-X-225

— SIZES — Wdth Ft. In.	Height Ft. In.	⅞ Inch Thick Clear Yellow Pine	1⅛ Inch Thick Clear Yellow Pine
1-6 x 2-0		$1.44	$1.58
1-6 x 2-6		1.48	1.62
1-6 x 3-0		1.62	1.80
1-6 x 4-0		2.16	2.40
1-8 x 2-6		1.48	1.62
1-8 x 4-0		2.40	2.68

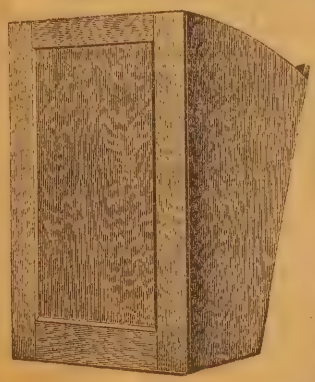


10-X-225

10-X-225

FLOUR BINS

Make Your Own Kitchen Cabinet



Just the thing to use for the construction of kitchen cabinet or pantry cupboard. It is a tilting flour bin made of selected wood, clear yellow pine face and lined with basswood.

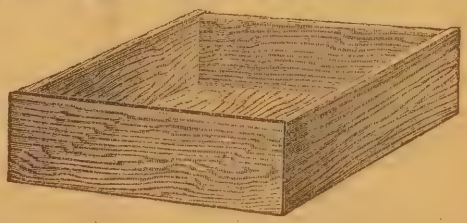
All material is glued, smoothed and ready to put together, but is shipped to you knocked down. The bin is so arranged that it can be fastened at the bottom with small loose bin butts, giving it an excellent tilt of arrangement and yet making it possible to take it out of the cabinet for cleaning and airing.

These bins are made 2 ft. 6 in. high, 1 ft. 6 in. wide, 9 in. at the bottom and 17 in. at the top.

No. 10-X-882. Price in the Knock Down $5.10

No. 10-X-883. Price Set Up 5.40

SEPARATE DRAWERS



These drawers are made from seasoned, selected stock, with clear Yellow Pine lip face and soft wood body. They are well manufactured in every way. We furnish in the most desirable sizes, listed below, all drawers being made 18 inches deep.

Prices 10-X-879

Sizes Width up to	Height In.	Depth In.	Price, Each, K. D.		Price, Each, Set Up	
			Y. P.	Oak	Y. P.	Oak
1' 5"	4¾	18	$1.18	$1.55	$1.38	$1.75
3'	6¾	18	1.98	2.10	2.18	2.30

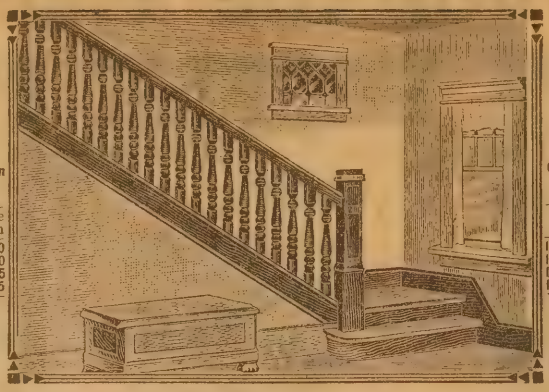
Exceptional Values In Stair Material

Circle Treads and Risers

Furnished Complete as Illustrated
Built—Ready to Set in Place

Circle Step—Furnished Right or Left Hand Return
Illustration shows left-hand return
Prices for Sizes up to 4 ft. (Width of Stairs)

No.	Description	Wood	Price Each
10-X-660.	Left Hand Return	Clear Y. P.	$7.50
10-X-661.	Right Hand Return	Clear Y. P.	7.50
10-X-662.	Left Hand Return	Clear Oak	8.75
10-X-663.	Right Hand Return	Clear Oak	8.75



Circle Treads and Risers

Furnished Complete as Illustrated
Built—Ready to Set in Place

Circle Step—Furnished Right or Left Hand Return
Illustration shows Right Hand Return
Prices for Sizes up to 4 ft. (Width of Stairs)

No.	Description	Wood	Price Each
10-X-672.	Right Hand Return	Clear Y. P.	$7.00
10-X-673.	Left Hand Return	Clear Y. P.	7.00
10-X-674.	Right Hand Return	Clear Oak	8.00
10-X-675.	Left Hand Return	Clear Oak	8.00

Stair Rail

3½x2½" Rabbeted ⅞"
10-X-686. Mission Rail. Prices per Lineal Foot.
Yellow Pine.....38c
Red Oak.....44c

2¾x3¾ inches
10-X-156. Prices per Lineal Foot.
Yellow Pine.....34c
Oak.....40c

Add 1c per foot if rabbeted for 1⅛ in. or 1¾ in. Balusters.

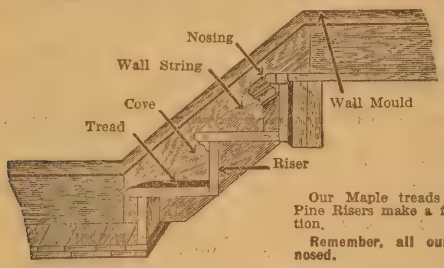
HIGHEST GRADE SELECTED STOCK—BEST WORKMANSHIP

The stairway is the first thing to be noticed about the interior of a house, just as the stairway picture caught your eye when you opened the book at this page. Therefore, it is essential that you look well to the style and class of material used for this purpose.

Stair Shoe and Fillet

⅞x2¾ inches
10-X-157. Rabbeted Shoe. Per Lineal Foot.
Yellow Pine 5½c
Oak 8½c

¾x1¾ inches
10-X-158. Fillet. Per Lineal Foot.
Yellow Pine 2½c
Oak 4½c



Our Maple treads and Yellow Pine Risers make a fine combination.

Remember, all our treads are nosed.

Stair Treads and Risers

Illustration to the left shows a sectional view of our stair treads, risers, string, etc., showing how easy it is to put up a flight of stairs from the material we quote.

Not only do our prices on stairwork effect a great saving for you, but you can build a larger range of sizes and a larger variety from the stock we list. You can put up a flight of stairs from our machined and cut-up stock in quicker time with less cutting, an important labor-saving feature.

PRICES OF TREADS AND RISERS

Surfaced, cut smooth and nosed front. Clear Stock. Price each.

No.		Sizes Inches	Sizes Feet	Y.-P	Oak
10-X-666.	Riser	¾ x 7½	x 3	.38	$0.62
10-X-678.	Riser	¾ x 7½	x 3½	.45	72
10-X-679.	Riser	¾ x 7½	x 4	.50	.84
10-X-668.	Tread	1⅛ x 11½	x 3	.75	1.30
10-X-682.	Tread	1⅛ x 11½	x 3½	.88	1.52
10-X-683.	Tread	1⅛ x 11½	x 4	.95	1.62

10-X-124
Main Newel

10-X-206
Main Newel

10-X-684
Mission
Main Newel

10-X-128
Angle or
Landing Newel

10-X-685
Mission
Angle Newel

Main Newels

Artistic and Exclusive Designs, 8 inches at Base, 6 inch Shaft. 4 feet long, extra long base.

Price each	Yellow Pine	Plain Oak
10-X-124	$6.20	$7.05
10-X-206	5.60	6.15
10-X-684. Cap 9¾ in., Shaft, 6 in., Base, 7¾ in. Height 4 ft.		
Price, each	$8.50	$7.20

Angle or Landing Newels

5 inch extra long Shaft can be cut down to use as landing or starting newels.

Prices of Angle Newels.

Price each	Y. P.	Plain Oak
10-X-128	$4.50	$5.20

ANGLE NEWEL, 10-X-685, 5 ft. long. Price, ea., Yellow Pine, $5.50; Red Oak, $6.10.

WALL ROSETTE

10-X-669. Size 4½x4½	Price Each
Yellow Pine	28c
Red Oak	34c

ACORN END FOR ROUND RAIL

	Price each
10-X-671. Acorn End, Yellow Pine	24c
10-X-677. Acorn End, Red Oak	28c

ROUND RAIL

	Price per ft.
10-X-670. Rail, 1¾ inches diameter, Y. P.	10c
10-X-676. Rail, 1¾ inches diameter, R. O.	15c

SQUARE EDGE BALUSTER STOCK

10-X-653. Square surfaced 4 sides smoothly finished; furnished in random lengths. Price per 100 linear feet:

	Yellow Pine	Oak
1⅛x1⅛	$3.10	$5.30
1¾x1¾	6.95	13.90

Stair Balusters

10-X-118

10-X-652

Mission
10-X-689

1¾ inches thick; furnished 28 inches and 32 inches long. No. 10-X-652 also supplied in long lengths. Smoothly finished.

Cat. No.	Length 28 inches		Length 32 inches	
1¾ in. thick	Y. P.	Oak	Y. P.	Oak
10-X-118	30c	32c	32c	35c
10-X-652	27c	34c	34c	36c

Balusters 10-X-689. ¾x2¾ Inches

	Length 28 inches	Length 32 inches
Yellow Pine	27c	30c
Red Oak	30c	34c

LANDING NOSING

10-X-8262. Size. 1⅛x2¼. Price per 100 lineal feet.
Yellow Pine....$5.80
Plain Red Oak. 6.65

RETURN NOSING

10-X-8262½

Size 1⅛x1⅜	Price
Yellow Pine	$4.10
Oak	7.54

WALL MOLD

STAIR STRINGERS

Prices per 100 Lineal Feet.

		Size	Wood	Price
10-X-654.	Wallmold...	¾x 1⅜	Y. P.	$2.45
10-X-655.	Wallmold...	¾x 1⅜	Oak	4.55
10-X-656.	String.....1	x10	Y. P.	13.70
10-X-678½.	String.....1	x12	Y. P.	17.80
10-X-657.	String.....1	x10	Oak	26.00
10-X-679½.	String.....1	x12	Oak	31.50

STAIR STRINGER

Free! Our New Harris Home Book of Plans!

Complete Stair Bills at Big Savings

How to Save Money on Stair Work

The six stair bills shown here have been carefully designed to suit the average requirements. Material for the same designs reversed, furnished at prices quoted. We may not show the particular stair design you want, or you may wish to make changes in the material and use some other styles in Newels, Rail or Balusters. We are prepared to figure with you on any kind of Special Stairwork and urge you to send us your details for prices. Where the carpenter prefers to cut out his own stringers, we suggest that you order the material only.

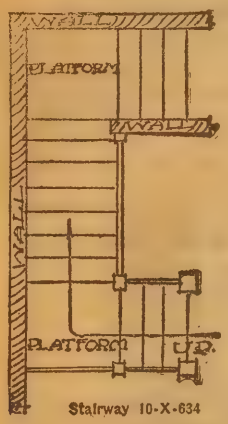
The prices specified on each stairway cover the material only with stair stringers not housed or cut out to receive treads and risers also, the material with stair stringers housed.

The material mentioned in our list is based on average run of stairs not higher than 9 ft. 9¼ inches from floor to floor. Stair carriages are not furnished with these bills as this part of the work should be done on the job to insure an exact fit. Treads and risers are cut to lengths specified.

When you order the stairway with the stringers housed do not fail to give us exact height from finished floor to finished floor, also the measurement of the floor space the stairway will occupy.

These bills of Stair Material are furnished in the knock-down only and we are very careful in preparing for shipment, everything being properly packed and bundled so as to reach you in the best of condition.

We quote on both Clear Yellow Pine and Clear Red Oak and taking quality into consideration, we know our prices are away below what ordinarily is asked for goods of this character.



Stairway 10-X-634

$59.95 Buys Material for this Stairway

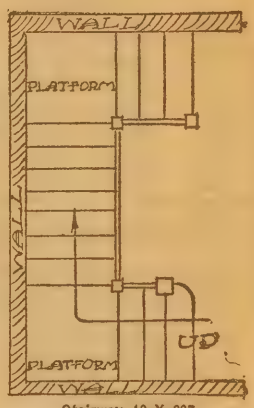
Consisting of:	Sizes Inches	Length Feet
13 Treads	1⅛x12	3
3 Pieces Nosing	1⅛x 2¼	3
16 Risers	1 x 8	3
2 Stringers	1 x12	12
2 Stringers	1 x12	8
48 lin. ft. Cove	¾x ⅞	
2 Main Newels		
2 Landing Newels		
16 lin. ft. Hand Rail	2¾x 3¾	
12 Balusters S4S	1¾x 1¾	2-4
20 Balusters	1¾x 1¾	2-8

Stairway 10-X-634	Yellow Pine	Red Oak
Total Price (Stringers not housed) KD and bundled	$59.95	$79.85
Stairway 10-X-634-H with Stringers housed to receive Treads and Risers	$67.95	$87.85

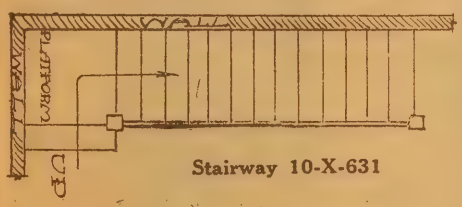
$54.44 Buys Material for this Stairway

Consisting of:	Sizes Inches	Length Feet
12 Treads	1⅛x12	3
3 Pieces Nosing	1⅛x 2¼	3
1 Starting Tread		
15 Risers	1 x 8	3
2 Stringers	1 x12	8
2 Stringers	1 x12	14
48 lin. ft. Cove	¾x ⅞	
1 Main Newel		
3 Landing Newels		
16 lin. ft. Hand Rail	2¾x 3¾	
12 Balusters S4S	1⅛x 1⅛	2-4
12 Balusters S4S	1⅛x 1⅛	2-8

Stairway 10-X-637	Yellow Pine	Oak Red
Total Price (Stringers not housed) KD and bundled	$54.44	$76.95
Stairway 10-X-637-H with Stringers housed to receive Treads and Risers	$62.40	$84.95



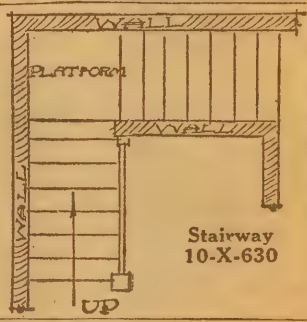
Stairway 10-X-637



Stairway 10-X-631

We have figured on the basis of the actual material only as specified in our bills listed here, based on average run not higher than 9 ft. 9¼ inches from floor to floor. Treads and risers will be cut to lengths specified. Carriages are not furnished—better results may be obtained by cutting them on the job as the variation of an inch or so in height from floor to ceiling is apt to cause trouble.

We furnish these stair bills in the knock-down. Carefully packed and bundled.



Stairway 10-X-630

Material for Stairway 10-X-631 — $40.85

Consisting of:	Sizes Inches Feet		Y. P.	Red Oak
14 Treads	1⅛x12 x 3	Stairway 10-X-631		
2 Pcs. Nosing	1⅛x 2¼x 3			
16 Risers	1 x 8 x 3	Total Price (Stringers not housed) KD and bundled		
2 Stringers	1 x12 x10			
2 Stringers	1 x12 x 8			
48 lin. ft. Cove	¾x ⅞		$40.85	$48.85
1 Main Newel.				
1 Ldg. Newel.		Stairway 10-X-631-H		
14 lin. ft. Hand Rail	2¾x 3¾	With Stringers housed to receive Treads and Risers		
18 Balusters S4S	1⅛x 1⅛x2-4			
13 Balusters S4S	1⅛x 1⅛x2-8		$56.53	$64.50

Material for Stairway 10-X-630 — $38.95

Consisting of:	Sizes Inches Feet		Y. P.	Red Oak
14 Treads	1⅛x12 x 3	Stairway 10-X-630		
2 Pcs. Nosing	1⅛x 2¼x 3			
15 Risers	1 x 8 x 3	Total Price (Stringers not housed) KD and bundled		
2 Stringers	1 x12 x10			
1 Stringer	1 x12 x 8			
48 lin. ft. Cove	¾x ⅞		$38.95	$55.70
1 Main Newel.				
1 Ldg. Newel.		Stairway 10-X-630-H		
6 lin. ft. Hand Rail	2¾x 3¾	With Stringers housed to receive Treads and Risers		
6 Balusters S4S	1⅛x 1⅛x2-4			
6 Balusters S4S	1⅛x 1⅛x2-8		$46.95	$63.70

Beam Ceiling and Wainscoting

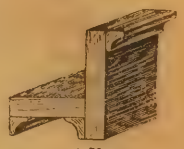
Ceiling Beam
7 Member

10-X-544

Our 7-Member Beam is fully 6 inches wide and has a projection 4½ inches from ceiling.

Yellow Pine, per lineal foot 26c
Red Oak, per lineal ft..42c

Ceiling Beam
5 Member



10-X-545

Projection 4½ inches.

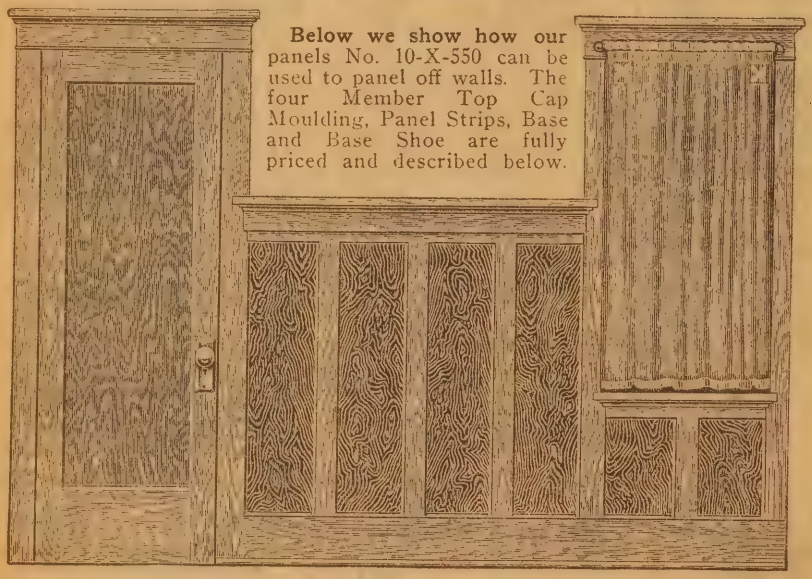
Yellow Pine, per lineal foot 18c
Red Oak, per lineal ft..32c

Yellow Pine 5 and 7 Member Beam Ceiling for Room Size 12x12 ft., $22.88

Beamed Ceilings are now considered an essential feature for the interior decoration of all high class residences, and by proper arrangement of beams, panels, mouldings, etc., beautiful and artistic effects may be gained which add greatly to beautify the home and make it more attractive. It is really surprising how far a little money goes in this respect. One can completely change the aspect and add a great deal more to the beauty of the interior of a room by a judicious use of beams, panels and wainscoting.

If you are considering plans for **remodeling your home,** you cannot accomplish more in enhancing the value than by putting in beamed ceilings and some paneling in the main rooms.

Wainscoting for Your Home Priced Very Low



Below we show how our panels No. 10-X-550 can be used to panel off walls. The four Member Top Cap Moulding, Panel Strips, Base and Base Shoe are fully priced and described below.

No. 10-X-1019. Cap as shown in illustration. Consists of four members and projects 3½ inches from wall, while the member extending along the wall is 4½ inches **and grooved to fit over wood panel.**
Yellow Pine, price per lineal foot.....17c
Plain Red Oak, price per lineal foot.....30c

No. 10-X-549. Panel Strips or the upright pieces used to form the panel effect are $\frac{1}{16}$x2½ inches.
Yellow Pine, price per lineal foot..... 4c
Plain Red Oak, price per lineal foot..... 7c

No. 10-X-1020. Base which is used below panel is ¾x7¼ inches and is grooved to fit over panels.
Yellow Pine, price per lineal foot.....12c
Plain Red Oak, price per lineal foot.....21c

The base shoe or carpet strip can be found on other pages in this catalog.
We can also furnish Oak Panels; write us for special prices.

Three-Ply Panels for Wainscoting

Slash Grain Fir Stock

One Side Ready to Finish

10-X-550

The beautifully figured slash grain Pacific Coast Fir makes the finest panels imaginable. Can be stained and finished to imitate oak, mahogany and other expensive woods. Fir Panels are laminated, that is, built up 3-ply, with the center layer running crosswise to the face, making them strong and warp proof, like the panels in our high grade Fir doors. The following table lists the sizes we carry in stock:

WIDTH INCHES	LENGTH INCHES	
	48 IN.	60 IN.
12	$0.88	$1.16
16	1.15	1.44
18	1.32	1.62
20	1.98	2.50
24	2.40	2.98

For two sides ready to finish add 50 per cent, or half more. Our Panels are cut evenly and in correct sizes.

WRITE US FOR FREE SAMPLE.

Ask For Your Copy of Our New Plan Book of Harris Homes!

Interior Trimmings

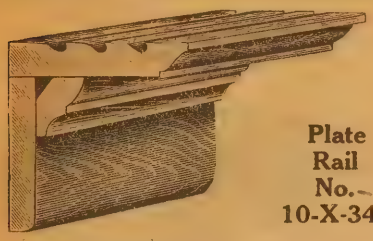


Plate Rail No. 10-X-340

Furnished in clear Selected Yellow Pine or Oak. Three member. Projection from wall 4¾ inches. Height over all 4½ inches. Price complete as shown.

Plate Rail 10-X-340.

Yellow Pine.....Per Lineal Foot.....17c
Oak .....Per Lineal Foot.....31c

Combination Plate Rail and Picture Mold

Two members, fitted and glued together. Serves double purpose of Plate Rail and Picture Mold at price of one. Projection from wall 3 inches. Height over all 2 inches. Price complete as shown.

10-X-343.

Yellow Pine.....Per Lineal Foot.....10c
Oak .....Per Lineal Foot.....15½c

Base Angles

No.	Size, Ins.	Wood	Price Per 100
10-X-131	1⅜x12	Yel. Pine	7½c
10-X-161	1⅜x12	Pl. R. Oak	8c

Corner Beads

No.	Size, Ins.	Wood	Price Each
10-X-130	1⅜x4	Yel. Pine	30c
10-X-160	1⅜x4	Pl. R. Oak	34c

Round Edge Corner Bead

Price Per 100 Lineal Feet.

No.	Size, Ins.	Wood	Price
10-X-541	1⅜x1⅜	Yel. Pine	$4.90
10-X-542	1⅜x1⅜	R. Oak	8.50

Hardwood Thresholds

No. 10-X-154. ⅝x3¾ Ins.

Clear Birch, length 3 feet. Price, each.....18c
Clear Oak, length 3 feet. Price, each.....22c

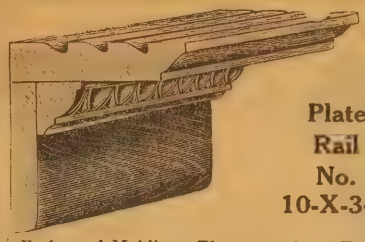


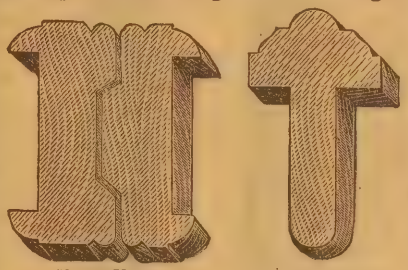
Plate Rail No. 10-X-341

Embossed Molding. Three member. Furnished in Clear Yellow Pine or Oak, carefully selected. Projection from wall 4¾ inches. Height over all 4½ inches. Price complete as shown.

Plate Rail 10-X-341.

Yellow Pine.....Per Lineal Foot.....21c
Oak .....Per Lineal Foot.....34c

Sliding and Folding Door Astragals

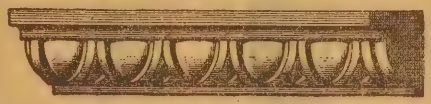


No. 10-X-8446 **No. 10-X-8449**

All Astragals are 8 feet long.

	Y. P.	Oak
10-X-8446. Sliding Door Astragal, rabbetted 1⅜ inches, per pair	$1.00	$1.80
10-X-8446. Sliding Door Astragal, rabbetted 1¾ inches, per pair	1.00	1.75
10-X-8449. Folding Door Astragal, rabbetted 1⅜ inches, each	.90	1.00
10-X-8449. Folding Door Astragal, rabbetted 1¾ inches, each	.90	1.00

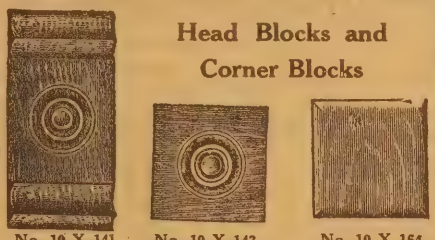
Embossed Egg and Dart Mold



Price per 100 Lineal Feet.

No.	Wood	Sizes and Prices ⅜x½ Ins.	⅝x¾ Ins.
10-X-194	Yel. Pine	$3.50	$4.70
10-X-195	Oak	3.70	4.95

Head Blocks and Corner Blocks



No. 10-X-141 **No. 10-X-142** **No. 10-X-164**

No.	Wood	Size	Price Each
10-X-141	Yellow Pine	1⅛"x4½"x10"	14c
10-X-141	Red Oak	1⅛"x4½"x10"	16c
10-X-142	Yellow Pine	1⅛"x4½"x4½"	10c
10-X-142	Red Oak	1⅛"x4½"x4½"	13c
10-X-164	Yellow Pine	1⅛"x4½"x4½"	7c
10-X-164	Red Oak	1⅛"x4½"x4½"	9c

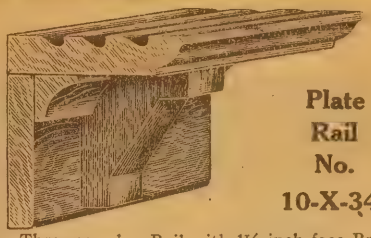


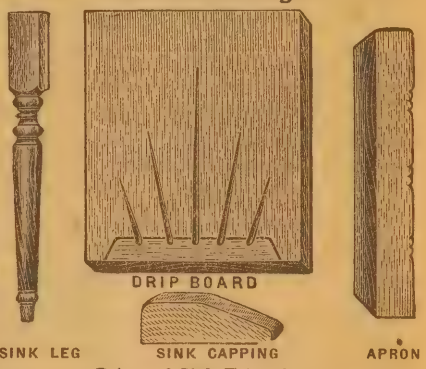
Plate Rail No. 10-X-342

Three member Rail with 1⅛ inch face Brackets regularly spaced. Clear Yellow Pine or Oak—selected stock. Projection from wall 4¾ inches. Height over all 4½ inches. Price complete as shown.

Plate Rail 10-X-342.

Yellow Pine.....Per Lineal Foot.....21c
Oak .....Per Lineal Foot.....26c

Sink Trimmings



Prices of Sink Trimmings.

Furnished in Plain Oak Selected Stock. Apron will be shipped plain, not beaded.

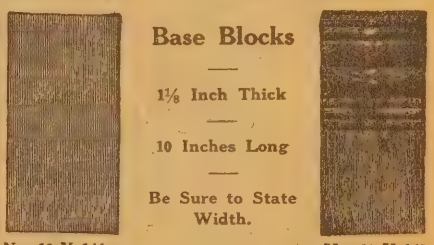
No.		Size		Price
10-X-179.	Sink Board	24x24	Each	$2.40
10-X-180.	Sink Board	24x30	Each	3.10
10-X-181.	Sink Legs	1¾x30	Each	.35
10-X-182.	Sink Apron	⅞x5½	Per lin. ft.	.16
10-X-183.	Sink Capping	⅞x3	Per lin. ft.	.09

Embossed Picture Mold

Price per 100 Lineal Feet.

No.	Size, Ins.	Wood	Price
10-X-188	13/16x1½	Yel. Pine	$6.70
10-X-189	13/16x1½	Pl. R. Oak	7.80

Base Blocks



1⅛ Inch Thick

10 Inches Long

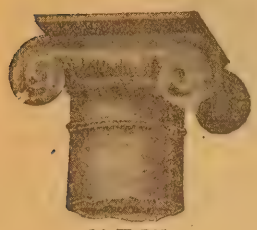
Be Sure to State Width.

No. 10-X-144 **No. 10-X-143**

No.	Wood	Size	Price Each
10-X-144	Yellow Pine	1⅛"x4½"x10"	12½c
10-X-144	Red Oak	1⅛"x4½"x10"	19c
10-X-143	Yellow Pine	1⅛"x4½"x10"	14½c
10-X-143	Red Oak	1⅛"x4½"x10"	21c

High Grade Colonial Columns

Roman Ionic Cap



10-X-531

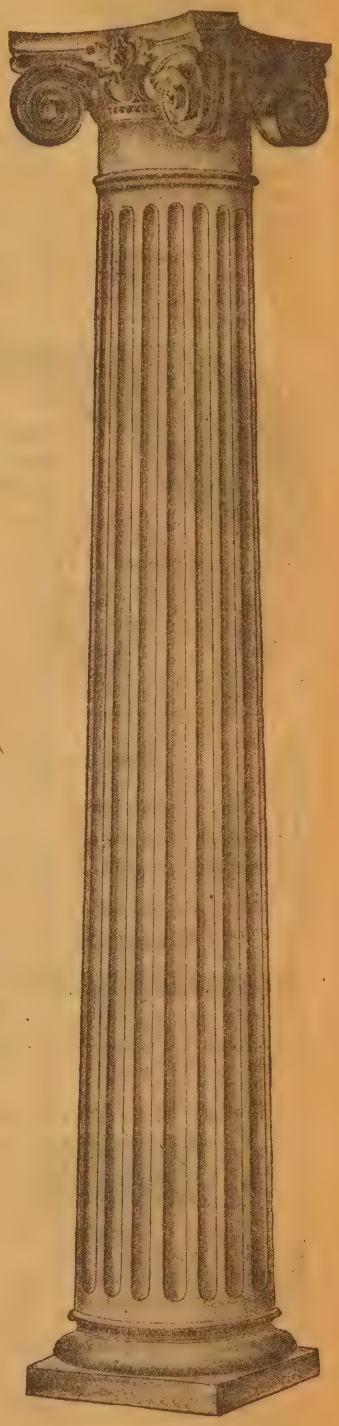
Roman Corinthian Cap

10-X-532

Plain Colonial Cap

10-X-533

Scamozzi Cap 10-X-530



10-X-344

Giant Colonial Column. Fluted Shaft.

Round Colonial Columns

IMPROVED LOCK JOINT CONSTRUCTION

BUILT UP FROM CLEAR SELECTED STOCK

OF THE MOST DURABLE LUMBER PRIMED IN OIL

Our High Grade Colonial Columns are made of thoroughly seasoned lumber, selected with careful regard to weather-resisting quality, strictly clear stock being used. The staves are lockjointed and glued to make a perfect and tightly fitting joint.

In the matter of price, we have gone to the extreme limit to give the best quality for the least price, but in no way have we allowed price reduction to lower the high character of these goods.

We do not handle No. 2 Columns, as experience has proved that builders cannot be satisfied with an inferior grade.

PRICES COLONIAL COLUMNS

Diam. of Shaft, Inches.	Length, Feet.	10-X-110 Plain Shart as Illustrated.	10-X-210 Half Fl'td as illustrated.	10-X-109 Full Fl'td as illustrated.
6 x 6	6	$3.68	$5.18	$5.38
6 x 6	8	4.05	5.85	6.15
6 x 6	9	4.35	6.60	6.90
8 x 8	6	4.35	4.85	5.15
8 x 8	8	5.10	7.35	7.65
8 x 8	9	5.78	7.65	7.95
8 x 8	10	6.30	9.30	9.60
10 x 10	6	5.85	7.70	8.00
10 x 10	8	6.75	9.35	9.65
10 x 10	9	7.60	10.60	10.90
10 x 10	10	8.70	12.10	12.40
12 x 12	6	8.10	10.70	11.00
12 x 12	8	9.98	13.35	13.65
12 x 12	9	11.40	15.10	15.40
12 x 12	10	12.90	16.95	17.25

COMPOSITION CAPS

All prices listed on this page are for columns complete with Plain Colonial Cap **10-X-533,** and base as shown. Add extra for Composition Cap as follows:

COMPOSITION CAPS EXTRA

For Size of Column any Length.	Scamozzi Cap 10-X-530	Roman Ionic Cap. 10-X-531	Roman Corinthian Cap. 10-X-532
6" Column	$1.50	$1.90	$2.70
8" Column	1.65	2.15	3.50
10" Column	1.75	2.30	4.50
12" Column	1.95	2.50	5.60

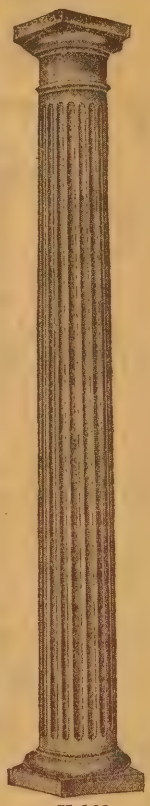
Note: We can furnish Composition Caps for interior columns. Write for prices.

"GIANT" COLONIAL COLUMNS

For the typical colonial home, nothing can surpass the majestic beauty and imposing grandeur of our "Giant" Colonial Columns. These columns are staved like the smaller columns and built of extra heavy stock, selected poplar. Even the smallest of these columns, 14 inches in diameter, are made of stock 2 inches thick and in the heaviest columns we use 3-inch lumber. This is an important fact and always should be considered when comparing values. To insure reaching you in perfect condition, the "Giants" are given a prime coat of paint and shipped direct from factory.

10-X-110

10-X-210



10-X-109

PRICES GIANT COLONIAL COLUMNS

Diam. Shaft Inches	Length Feet	10-X-344 Fluted Shaft Scamozzi Cap as Shown	10-X-345 Plain Shaft with 10-S-533. Plain Cap	10-X-346 Plain Shaft with 10-S-530. Compo Cap.
14 x 14	9	$47.50	$34.80	$40.80
14 x 14	12	57.90	44.00	50.00
16 x 16	12	72.30	53.90	61.90
16 x 16	15	87.10	60.30	74.30
18 x 18	16	105.20	80.00	90.90
20 x 20	18	133.70	100.40	115.10
22 x 22	18	153.50	112.40	131.70
24 x 24	20	217.60	167.80	191.50
26 x 26	22	255.10	194.70	222.90
28 x 28	24	298.00	226.50	259.30
30 x 30	26	395.20	259.60	297.60

For Fluted "Giant" Columns with plain cap 10-X-533, deduct 5 per cent from prices as shown for 10-X-346. Delivered prices on application.

Porch Trimmings

Wood Porch Post and Newels

Made of
CLEAR SOFT OREGON FIR

SIZE AND PRICE No. 10-X-113

Prices

Size	8 ft.	9 ft.	10 ft.
4x4 inches	$1.65	$1.80	$2.00
5x5 inches	2.55	2.85	3.15
6x6 inches	3.60	4.05	4.50

NEWELS

Size	10-X-112	10-X-114	10-X-115
4x4 in., 4 ft.	...	$0.80	$0.82
5x5 in., 4 ft.	...	1.25	1.27
6x6 in., 4 ft.	$2.82	1.80	1.83
8x8 in., 4 ft.	3.05	...	...

10-X-113 10-X-114 10-X-115 10-X-112

Fancy Baluster

For exterior use. Made of clear soft Oregon fir, turned in first class workmanlike manner. Turned parts sanded.

PRICES

No. 10-X-608 or 10-X-609

Size 1¾x1¾ Inches

20 in. long, each 9½c
Crate of 50 ..... $4.50
24 in. long, each 9½c
Crate of 50 ..... $4.50

Size 2¼x2¼ Inches

20 in. long, each 18½c
Crate of 50 ..... $9.00
20 in. long, each 18½c
Crate of 50 ..... $9.00

Porch Spindle and Sawed Baluster

SOFT WOODS

10-X-132

Size	Price ea.
1¾x10"	4½c
1¾x12"	5½c

10-X-601 Sawed Baluster.
⅞-in. thick, 5½-in. wide.
Price ea., 2 ft. long .. 24c
Price, ea., 2 ft., 6 in. long 26c

Square Built Up Columns and Newels

Made of
CLEAR SOFT OREGON FIR

Sizes and Prices of No. 10-X-520

Length	8x8 in.	10x10 in.	12x12 in.
6 feet	$3.60	$6.15	$6.15
8 feet	5.25	7.65	6.30
9 feet	5.70	8.90	6.90
10 feet	6.30	9.90	8.25

BUILT-UP NEWELS.

10-X-522	Price, each
6x6 in., 4 ft. long	$2.80

10-X-521	Price, each
8x 8 in., 4 ft. long	$3.05
10x10 in., 4 ft. long	3.75

10-X-522 10-X-521 10-X-520

Porch Railing—Best Patterns

10-X-560
10-X-561

TOP and BOTTOM RAIL
Rabbeted ⅞-Inches
Top Rail 1¾x3" **10-X-560**
Per 100 lineal ft. $8.00
Bottom Rail **10-X-561**
13-16x3 Inches
Per 100 lineal ft. $4.00

10-X-146
Top Rail
1¾"x3"
Per 100 Lin. Ft.
$7.50

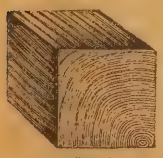
10-X-147
Bottom Rail
1¾"x3"
Per 100 Lin. Ft.
$7.50

10-X-606
Colonial Top Rail
Extra Heavy
2¼"x3¾"
Per 100 Lin. Ft.
$14.25

10-X-607
Colonial Bottom Rail,
Extra Heavy,
1¾"x3¾"
Per 100 Lin. Ft.
$10.00

Porch Balusters in Lineal Feet

Our porch baluster stock furnished in lineal feet, is all clear, soft Oregon fir correctly sized and well machined.



10-X-556
Square Baluster Stock Surfaced All Sides

1⅛x1⅛ in., per 100 lineal feet $2.25
1⅜x1⅜ in., per 100 lineal feet 2.90
1¾x1¾ in., per 100 lineal feet 3.50
Cut to lengths at **50c** per 100 ft. extra.

Porch Baluster Stock

Clear Soft Wood

10-X-152
Baluster Stock, 1⅜"x1⅜"
Per 100 lineal feet $3.00

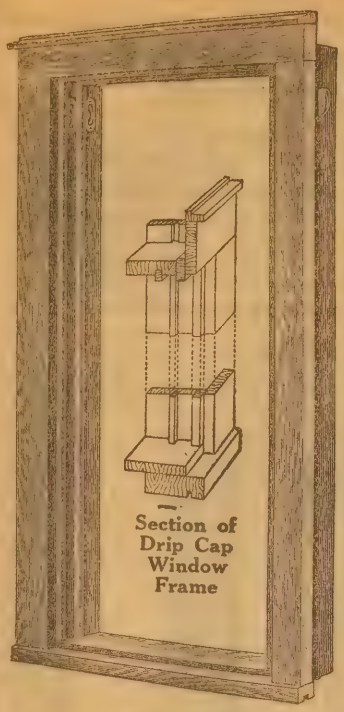
10-X-151
Baluster Stock, 1¾"x1¾"
Per 100 lineal feet $3.60

Rafter Ends

10-X-591 **10-X-594**
Made from 2x4 and 2x6 stock, dressed 4 sides
Selected Oregon Fir or Short Leaf Yellow Pine

Length	2 ft.	4 ft.		5 ft.		6 ft.	
	2x4 in.	2x4 in.	2x6 in.	2x4 in.	2x6 in.	2x4 in.	2x6 in.
10-X-591 ...	$0.52	$0.75	$0.90	$0.82	$1.05	$0.90	$1.20
10-X-594 ...	.50	.72	.88	.80	1.03	.88	1.18

Window Frames for Wood Frame Buildings



Section of Drip Cap Window Frame

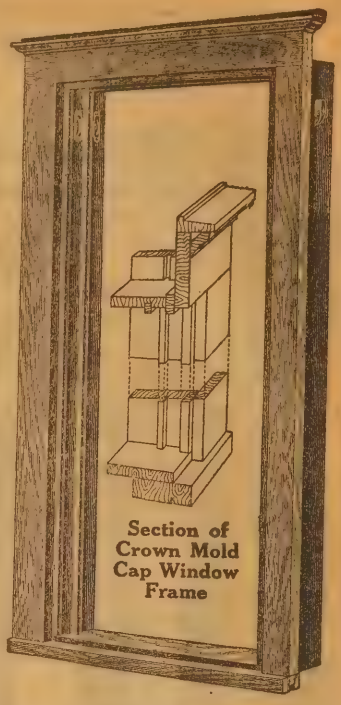
Our Window Frames are made of practically Clear Pacific Coast Fir and are of the highest grade that is manufactured. These frames are for frame buildings, having standard 2x4 studding, sheathing and plaster. All frames are carried in stock in the sizes listed below, all machined, ready to put together, no further cutting or fitting is necessary. All that is necessary after receiving our frames is to nail them together and any carpenter can put any of our frames together in ten or fifteen minutes. All frames are shipped knocked down, securely bundled to avoid damage in transit. We carry a complete stock in all sizes for immediate shipment.

Plain Drip Cap Window Frames

Illustration at the left shows our Plain Drip Cap Window Frames, which are furnished complete as shown, either with or without pulleys. Specifications: Outside casing 1⅛ x 4¼ inches, pulley stiles and head jambs 1⅜x5⅝ inches over all, including blind stop; plowed for parting stop. Two member sill, main section 1¾ x 3¾ inches, sub-section ¾x5½ inches, drip cap 1 7/16x1⅝ inches. See insert section for construction of frames.

Crown Mold Cap Window Frames

Illustration to the right shows our Crown Mould Cap Window Frames, which are furnished complete as shown, either with or without pulleys. Specifications are the same as our Drip Cap Window Frame to the left, with exception that Head Casing is 5¾ inches wide to allow for crown mould cap. Size of crown moulding is ¾x2¼ inches, size of drip cap 1⅛x3 inches. See insert section for construction of frames.



Section of Crown Mold Cap Window Frame

Remember our stock of Window Frames are made for buildings with standard 2x4 studding. Where pulley stiles for window frames are wanted wider than our stock, add 25c extra for each additional inch or fraction thereof. Such frames will have to be made special and will require more time to make shipment.

MULLION AND TRIPLE FRAMES

Mullion or Double Frames are double the price of regular frames of the same window opening size.

Triple Frames are three times the price of regular window frames of the same window opening size.

PRICES OF FRAMES FOR CHECK RAIL WINDOWS FOR WOOD FRAME BUILDINGS

Frame for Windows Containing TWO LIGHTS of Glass					DRIP CAP		CROWN MOLD CAP	
Glass Sizes Prices cover frame only	Outside Window measurement. Inside opening of frame. Ft.	In.		Ft. In.	1⅛ inch Casing without pulleys 10-X-456	1⅛ inch Casing including pulleys 10-X-458	1⅛ inch Casing without pulleys 10-X-457	1⅛ inch Casing including pulleys 10-X-459
12 x 20	1-	4⅛	x	3-10	$2.57	$2.87	$2.86	$3.16
12 x 24	1-	4⅛	x	4- 6	2.81	3.11	3.12	3.42
12 x 28	1-	4⅛	x	5- 2	3.09	3.39	3.42	3.72
14 x 20	1-	6⅛	x	3-10	2.57	2.87	2.86	3.16
14 x 24	1-	6⅛	x	4- 6	2.80	3.10	3.12	3.42
14 x 32	1-	6⅛	x	5-10	3.29	3.59	3.58	3.88
16 x 24	1-	8⅛	x	4- 6	2.82	3.12	3.12	3.42
16 x 28	1-	8⅛	x	5- 2	3.09	3.39	3.42	3.72
18 x 20	1-10⅛		x	3-10	2.70	3.00	3.05	3.35
18 x 26	1-10⅛		x	4-10	3.00	3.30	3.34	3.64
18 x 30	1-10⅛		x	5- 6	3.25	3.55	3.56	3.86
20 x 20	2- 0⅛		x	3-10	2.80	3.10	3.12	3.42
20 x 22	2- 0⅛		x	4- 2	2.83	3.13	3.15	3.45
20 x 30	2- 0⅛		x	5- 6	3.25	3.55	3.57	3.87
22 x 24	2- 2⅛		x	4- 6	3.00	3.30	3.32	3.62
22 x 28	2- 2⅛		x	5- 2	3.26	3.56	3.58	3.88
22 x 32	2- 2⅛		x	5-10	3.64	3.94	3.98	4.28
24 x 20	2- 4⅛		x	3-10	2.83	3.13	3.15	3.45
24 x 24	2- 4⅛		x	4- 6	3.09	3.39	3.42	3.72
24 x 26	2- 4⅛		x	4-10	3.22	3.52	3.56	3.86
24 x 28	2- 4⅛		x	5- 2	3.30	3.60	3.62	3.92
24 x 30	2- 4⅛		x	5- 6	3.44	3.74	3.76	4.06
24 x 36	2- 4⅛		x	6- 6	3.46	3.76	3.78	4.08
26 x 26	2- 6⅛		x	4-10	3.22	3.52	3.53	3.83
26 x 28	2- 6⅛		x	5- 2	3.30	3.60	3.64	3.94
26 x 30	2- 6⅛		x	5- 6	3.42	3.72	3.76	4.06
26 x 40	2- 6⅛		x	7- 2	3.96	4.26	4.28	4.58
28 x 28	2- 8⅛		x	5- 2	3.50	3.80	3.82	4.12
28 x 30	2- 8⅛		x	5- 6	3.57	3.87	3.90	4.20
28 x 32	2- 8⅛		x	5-10	3.70	4.00	4.04	4.34
30 x 24	2-10⅛		x	4- 6	3.22	3.52	3.56	3.86
30 x 28	2-10⅛		x	5- 2	3.54	3.84	3.88	4.18
30 x 30	2-10⅛		x	5- 6	3.63	3.93	3.98	4.28
30 x 32	2-10⅛		x	5-10	3.72	4.02	4.06	4.36
30 x 40	2-10⅛		x	7- 2	3.98	4.28	4.32	4.62
32 x 24	3- 0⅛		x	4- 6	3.35	3.65	3.69	3.99
32 x 30	3- 0⅛		x	5- 6	3.51	3.81	3.90	4.20
32 x 36	3- 0⅛		x	6- 6	4.13	4.43	4.45	4.75
34 x 30	3- 2⅛		x	5- 6	3.79	4.09	4.15	4.45
36 x 24	3- 4⅛		x	4- 6	3.51	3.81	3.86	4.16
36 x 28	3- 4⅛		x	5- 2	3.73	4.03	4.05	4.35
36 x 32	3- 4⅛		x	5-10	3.97	4.27	4.30	4.60
40 x 28	3- 8⅛		x	5- 2	3.92	4.22	4.26	4.56
40 x 30	3- 8⅛		x	5- 6	3.98	4.28	4.32	4.62
40 x 36	3- 8⅛		x	6- 6	4.32	4.62	4.66	4.96

Frame for Windows Containing FOUR LIGHTS of Glass					DRIP CAP		CROWN MOLD CAP	
Glass Sizes Prices cover frame only	Outside Window measurement. Inside opening of frame. Ft.	In.		Ft. In.	1⅛ inch Casing without pulleys 10-X-456	1⅛ inch Casing including pulleys 10-X-458	1⅛ inch Casing without pulleys 10-X-457	1⅛ inch Casing including pulleys 10-X-459
10 x 20	2-	1	x	3-10	$2.72	$3.02	$3.06	$3.36
10 x 24	2-	1	x	4- 6	3.00	3.30	3.32	3.62
12 x 20	2-	5	x	3-10	2.87	3.17	3.20	3.50
12 x 22	2-	5	x	4- 2	2.98	3.28	3.30	3.60
12 x 24	2-	5	x	4- 6	3.09	3.39	3.42	3.72
12 x 26	2-	5	x	4-10	3.22	3.52	3.54	3.84
12 x 28	2-	5	x	5- 2	3.30	3.60	3.62	3.92
12 x 30	2-	5	x	5- 6	3.40	3.70	3.73	4.03
14 x 24	2-	9	x	4- 6	3.22	3.52	3.54	3.84
14 x 26	2-	9	x	4-10	3.30	3.60	3.62	3.92
14 x 28	2-	9	x	5- 2	3.54	3.84	3.86	4.16
14 x 32	2-	9	x	5-10	3.72	4.02	4.06	4.36
14 x 40	2-	9	x	7- 2	4.10	4.40	4.42	4.72
15 x 30	2-11		x	5- 6	3.72	4.02	4.04	4.34
15 x 32	2-11		x	5-10	3.84	4.14	4.16	4.46
15 x 36	2-11		x	6- 6	4.13	4.43	4.45	4.75

Frame for Windows Containing EIGHT LIGHTS of Glass					DRIP CAP		CROWN MOLD CAP	
8 x 10	1-	9	x	3-10	$2.66	$2.98	$2.98	$3.29
9 x 12	1-11		x	4- 6	2.86	3.18	3.18	3.48
10 x 12	2-	1	x	4- 6	3.00	3.32	3.34	3.64
10 x 16	2-	1	x	5-10	3.70	4.02	4.04	4.34
12 x 14	2-	5	x	5- 2	3.36	3.68	3.69	3.99
14 x 16	2-	9	x	5-10	3.56	3.88	3.89	4.19
14 x 20	2-	9	x	7- 2	4.10	4.42	4.43	4.73

Frame for Windows Containing TWELVE LIGHTS of Glass					DRIP CAP		CROWN MOLD CAP	
8 x 10	2-	4½	x	3-10	$2.92	$3.24	$3.25	$3.55
9 x 12	2-	7½	x	4- 6	3.12	3.42	3.44	3.74
10 x 12	2-10½		x	4- 6	3.34	3.66	3.68	3.98
10 x 14	2-10½		x	5- 2	3.56	3.88	3.90	4.20
10 x 16	2-10½		x	5-10	3.72	4.04	4.06	4.36
12 x 14	3-	4½	x	5- 2	3.74	4.06	4.08	4.38
12 x 20	3-	4½	x	7- 2	4.29	4.59	4.62	4.94

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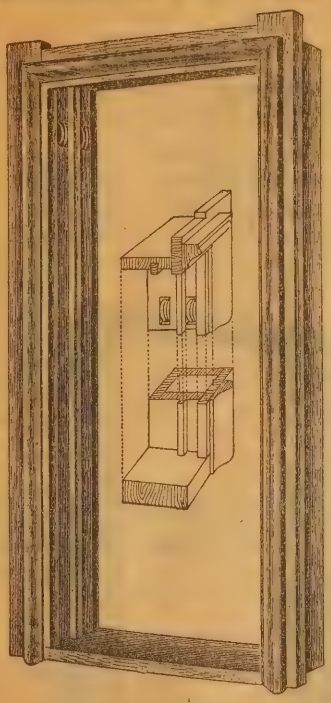
HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

SPLENDID WINDOW FRAMES



Window Frames for Solid Brick, Stone or Cement Block Buildings

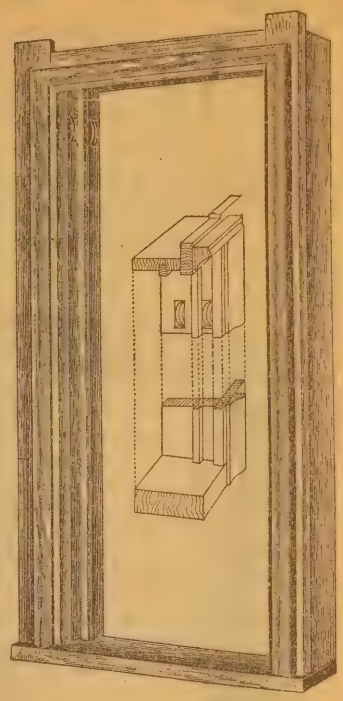
are illustrated at the left. These frames are known as Box Window Frames, made for a regular 9 inch wall, but can be used for 13 inch wall by using an extension jamb. Specifications: This frame has 1⅛x1⅝ inch brick mould, ¾x5 inch blind stop, ¾x4½ inch pulley stile, ½x1⅜ inch parting stop, ¾x4¼ inch rabbeted box lining and ¾x4½ inch back box lining. All exposed lumber will be clear face stock, carefully selected and thoroughly seasoned. The box linings are made from good, sound, second quality lumber.

Window Frames for Brick Veneer Buildings

are illustrated at right. This frame is used for walls of 2x4 studding, veneered with a layer of brick, and they are made in the same manner as the frame for a brick or stone wall, with the exception that the box lining is omitted, not being required. All exposed lumber is clear face selected stock. Specifications: Blind stop, ¾x3¾ inches; pulley stile, ¾x4⅝ inches, making width of jamb 5½ inches, including blind stop. Brick mould, 1⅛x1⅝ inches; parting stop ½x13/16 inch. Sills made from 2x8 stock.

All our frames are made in exact sizes. Every piece is cut to fit, ready to put together, easily assembled. We ship them knocked down to avoid damage in transit and extra freight. Remember when consulting the table below that intermediate sizes are furnished at the price of the next larger size. When ordering, give size of window and frame will be made to fit.

Note: If Box Frames are wanted for brick arch, be sure to specify and allow 15c net extra for each frame.

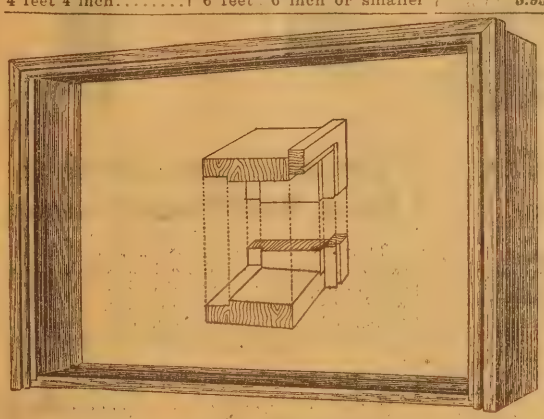


Prices of Box Window Frames
Order by Size and Number—Prices Include Pulleys

Width	Height	Price Each Frame No. 10-X-108
2 feet 2 inch	4 feet 6 inch or smaller	$4.55
2 feet 6 inch	5 feet 2 inch or smaller	4.75
2 feet 8 inch	5 feet 10 inch or smaller	4.95
3 feet 4 inch	5 feet 2 inch or smaller	5.15
4 feet	5 feet 10 inch or smaller	5.40
4 feet 4 inch	6 feet 6 inch or smaller	5.95

Prices of Brick Veneer Frames
Always Give Width First—Prices Include Pulleys

Width	Height	Price Each Frame No. 10-X-467
2 feet 2 inch	4 feet 6 inch or smaller	$4.10
2 feet 6 inch	5 feet 2 inch or smaller	4.25
2 feet 8 inch	5 feet 10 inch or smaller	4.45
3 feet 4 inch	5 feet 2 inch or smaller	4.65
4 feet	5 feet 10 inch or smaller	4.90
4 feet 4 inch	6 feet 6 inch or smaller	5.35

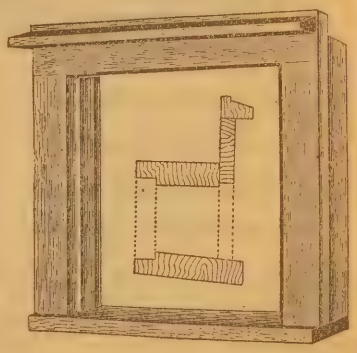


Sash Frames

For Single Stationary Sash

These frames are used in gables, dormers, stair landings and vestibules.

Sash frame per illustration to right is made of the same high grade material as all the other window and door frames, suitable for frame buildings where 2x4 studding are used with lath and plaster on inside and sheathing on the outside, making jamb 5⅜ inches over all. Furnished drip cap or crown mould cap, just as ordered. Also made from 2x6 or 2x8 plank for brick or stone building. Be careful to order correct style, stating in your order for what kind of a building same will be used and mention catalog number.



Cellar Sash Frame. No. 10-X-107

Plank cellar sash frames are made with a 1⅜x5½ inch jamb, 1⅛x1¾ inch clear brick moulding. Knocked down, bundled for shipment. Made of clear Western Fir.

No. 10-X-107. Plank cellar sash frame, size 3 feet 4 inches by 2 feet or smaller openings.
Price **$2.15**

No.	Description	Price for Sash Opening 2-10x 2-11 or Smaller	Price for Sash Opening 3-4x 3-9 or Smaller	Price for Sash Opening 4-4x 5-10 or Smaller
10-X-476.	Drip Cap for 2x4 Studding	$2.45	$2.95	$3.95
10-X-477.	Crown Cap for 2x4 Studding	2.85	3.40	4.45
10-X-478.	2x6 Jambs for brick or stone wall	2.95	3.35	4.35
10-X-479.	2x8 Jamb for brick or stone wall	3.40	3.68	4.75

Mullion Frames

Mullion or Twin or Double Window Frames, just double price of regular frames of the corresponding size.

Triple Window Frames where three windows are used side by side, price will be just three times the cost of regular window frame as listed on this page for corresponding sizes.

MULLION or TWIN or DOUBLE SASH FRAMES or CASEMENT SASH FRAMES, just double prices as listed.

Casement Sash Frames

With Special Water-Tight Sill

These frames are made specially for casement sash, and the water-tight sill is so constructed that the sash can **swing either in or out. When ordering you must specify which way you want your sash to swing.** Be careful to order correctly, stating whether for frame or for brick building.

No. 10-X-488. Casement Sash Frame for frame building, jamb not over 5½ inches, **special sill construction,** for glass sizes up to 44x44, plain drip cap. Price, each..... **$4.65**

No. 10-X-489. Casement Sash Frame, same as above except **Crown Mould Cap.** Price, each.. **$4.85**

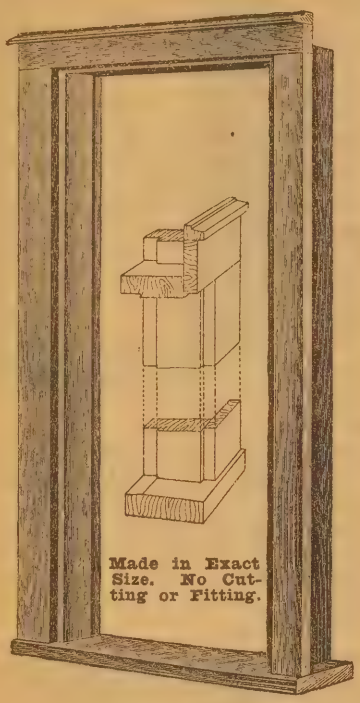
No. 10-X-490. Casement Sash Frame, same as above except made from 2x8 plank jamb or narrower jambs for **brick or stone or cement block buildings,** for sizes up to 44x44. Price, each..... **$4.75**

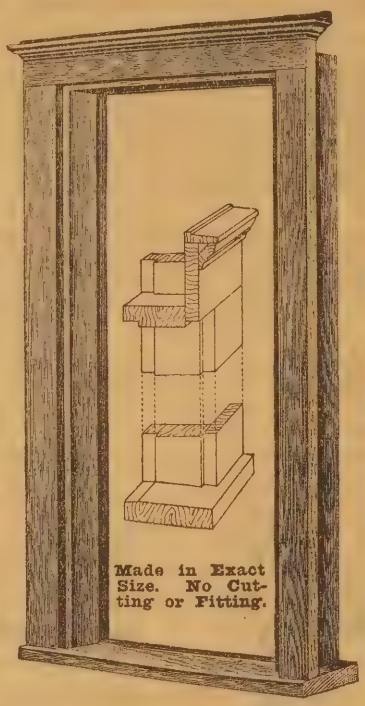
Also made for French Windows and Sash used in Paris. **Write for Prices.**

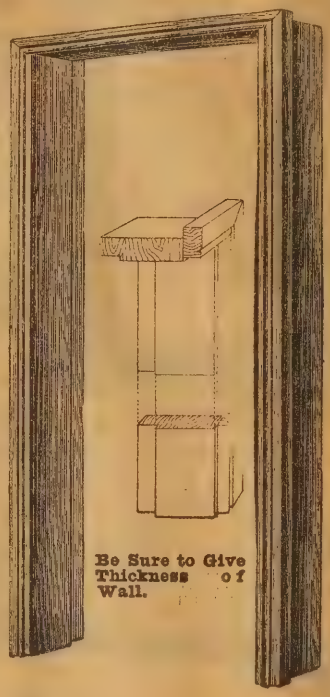
Highest Quality Outside Door Frames

WE CARRY a very complete stock of Door Frames in our mammoth warehouse in exact sizes as shown and priced below. Our door frames are made of thoroughly dried and seasoned lumber. We use practically clear fir lumber for the entire frame. All our door frames are knocked down and bundled for shipment so they will reach you in a clean and perfect condition and take the lowest freight rate.

In ordering door frames, be sure to give thickness of door for which it is intended. Unless otherwise specified, we ship doors rabbeted for 1⅜-inch thickness.







Drip Cap Door Frames

1⅛-inch Outside Casing

DOOR FRAME No. 10-X-99

Outside door frame No. 10-X-99 includes everything complete as shown; outside casing, 1⅛x4¼; solid sill, 1¾x7½; rabbeted jamb, 1⅜x5½. Made from clear Fir, practically all quarter-sawed bright stock, guaranteed high class in every particular.

No. 10-X-99. Outside door frames for 2x4 studding, with solid clear Fir sills, any size up to and including 3 ft. by 7 ft. rabbeted for doors 1⅜ inches in thickness or 1¾ inches in thickness. Complete, bundled for shipment in the knock-down **$4.50**

No. 10-X-413. Plain drip cap door frame with transom head, not exceeding 2 ft. in height. Price **$5.30**

Oak sills for any of above frames, 80 cents per frame extra.

Crown Mould Cap Door Frames

1⅛-inch Outside Casing

Door Frame No. 10-X-103

This frame has 1⅛x3 inch Drip Cap, 1⅛x7 inch head casing, 1⅛x4¼ inch outside casing, 2¼ inch crown moulding, 1⅜x5½ inch jamb, rabbeted to suit thickness of door, solid sill 1¾x7½. Made from clear Fir, practically all quarter-sawed.

No. 10-X-103. Crown mold cap outside door frame for frame buildings with 2x4 studding. Knocked down and carefully bundled. For door 3 ft. x 7 ft. or smaller opening. Price..... **$4.80**

No. 10-X-414. Crown mold cap door frame with transom head, not exceeding 2 ft. in height. Price **$5.60**

Oak sills for any of above frames, 80 cents per frame extra.

Cement Block, Stone or Brick Wall Door Frames

This frame has a 1⅛x1⅝ inch clear brick moulding. The jamb is good, sound and practically clear. No sill furnished with this frame. Frames are used for stone, brick, or cement buildings. Shipped, knocked down and carefully bundled.

No. 10-X-106-A. For 2x6 jamb.

2 ft. 6 in. x 6 ft. 6 in.	$3.50
2 ft. 8 in. x 6 ft. 8 in.	3.70
3 ft. x 7 ft.	3.90

No. 10-X-106. For 2x8 jamb.

2 ft. 6 in. x 6 ft. 6 in.	$4.60
2 ft. 8 in. x 6 ft. 8 in.	4.80
3 ft. x 7 ft.	5.00

No. 10-X-106½. For 2x10 jamb.

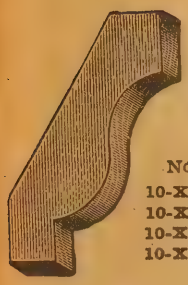
2 ft. 6 in. x 6 ft. 6 in.	$5.30
2 ft. 8 in. x 6 ft. 8 in.	5.60
3 ft. x 7 ft.	5.95

No. 10-X-415. Plank door frame with transom head, not exceeding 2 ft. in height. **Add to price above** **75c**

We furnish frames of all kinds for every purpose

Clear Outside Mouldings

SUPERIOR QUALITY CLEAR SOFT WOODS FOR PAINT



Crown Mouldings

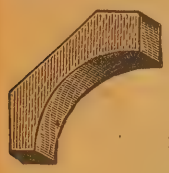
Price per 100 lineal feet

No.	Size	Fir
10-X-8000	¾x3¼	$4.50
10-X-8005	¾x4¾	6.60
10-X-8006	¾x4¼	5.40
10-X-8008	¾x2¼	3.00

Bed Mouldings

Price per 1000 lineal feet

No.	Size	Fir
10-X-8016	¾x1¾	$2.40



Sprung Cove

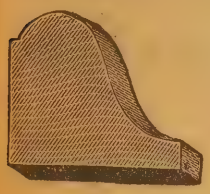
Price per 100 lineal feet

No.	Size	Fir
10-X-8024	¾x1¾	$2.40
10-X-8029	¾x3¼	4.20

Solid Bed Molds

Price per 100 lineal feet

No.	Size	Fir
10-X-8036	¾x1¼	$1.80
10-X-8037	1⅛x1⅜	3.50



Brick or Stone Moulding

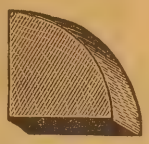
Price per 100 lineal feet

No.	Size	Fir
10-X-8038	1⅛x1¾	$3.96
10-X-8046	1⅛x1⅝	3.90

Coves

Price per 100 lineal feet

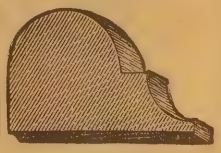
No.	Size	Fir
10-X-8060	¾x⅞	$1.20
10-X-8061	¾x1⅛	1.50



Quarter-Round

Price per 100 feet

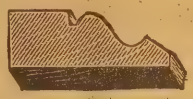
No.	Size	Fir
10-X-8065	¾x¾	$1.20



Nosings

Price per 100 lineal feet

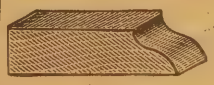
No.	Size	Fir
10-X-8125.	1⅜x2¼ for 1⅜ in. steps	$6.00



Band Moulding

Price per 100 lineal feet

No.	Size	Fir
10-X-8178	5/16x2	$2.75
10-X-8180	¾x2½	3.30



O. G. Stops

Yellow Pine

Price per 100 lineal feet

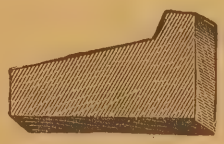
No.	Size	Clear Yellow Pine
10-X-8083	⅜x1⅛	$1.40
10-X-8084	⅜x1⅜	1.54
10-X-8085	⅜x1¾	1.96
10-X-8095	½x1¾	2.80
10-X-8096	½x1⅜	2.10

Lattice

Prices per 100 lineal feet

No.	Size	Fir
10-X-8281	5/16x1⅜	$1.20
10-X-8282	5/16x1¾	1.68

Watertable or Dripcap



Price per 100 lineal feet

No.	Size	Fir
10-X-8283	1⅛x1⅝	$3.96
10-X-8284	1⅛x2	4.50
10-X-8285	1⅛x2½	5.45
10-X-8286	1⅛x3	6.48

Window Frame Stock

Clear Soft Oregon Fir

Many carpenters prefer to make their own window frames. Here is an opportunity to buy all the material required at minimum cost. This stock will make an elegant frame.

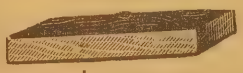
No. 10-X-8429½. Outside Casing. Price per 100 lineal feet. Size 1⅛x4¼. Clear Fir $8.90

No. 10-X-8430. Blindstop. Per 100 lineal feet. Clear Fir $1.80

No. 10-X-8431½. Pulley Stile. Plowed parting stop. Size ¾x4½. Price per 100 lineal feet. Yellow Pine $6.50
Clear Fir 6.60

No. 10-X-8432. Parting Stop. Per 100 lineal feet. Clear Fir $1.20

No. 10-X-8439½. Mainsill. Beveled edges and rabbeted for siding. Size 1¾x3¾. Sound solid Clear Fir stock. Price per 100 lineal feet $10.50

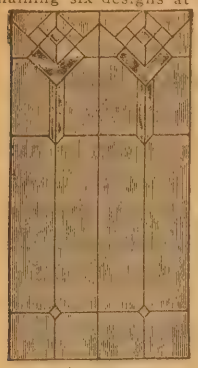


No. 10-X-8440½. Subsill. Edges beveled. Size ¾x5½. Per 100 lineal feet. Clear Fir $8.00

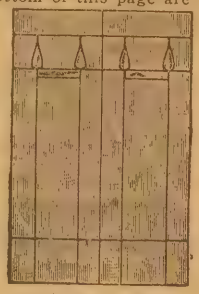
10-X-8442. Jamb Stock. Size 1⅜"x5½", rabbeted, for 1⅜" or 1¾" doors, clear fir. Per 100 lineal feet $15.50

Latest Creations in Art Glass

These black and white reproductions do not show the designs to the best advantage. The six designs shown in the top row are the latest creations in Novo Art Glass, which is the rage at the present time. The shaded portions of the glass are made of opalescent glass, rich in color, with a background of clear glass. Just enough color to make the glass beautiful and attractive. The four designs in the second row are leaded sheet crystal very beautiful in effect and furnished at prices far below the regular offering. Design No. 18-X-7541-X is also leaded crystal, while the remaining six designs at the bottom of this page are leaded beveled plate.



No. 10-X-1505X
Price per sq. ft.....98c



No. 10-X-1517X
Price per sq. ft.....96c

No. 10-X-1520X
Price per sq. ft.96c

No. 10-X-1511X, 98c

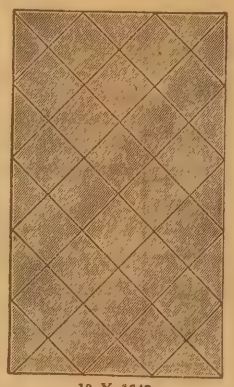
No. 10-X-1514X
Price per sq. ft.96c

Any of these designs are very desirable for Book-Cases, China Closets, Stair Landing and Hall Windows

No. 10-X-1523X
Price per sq. ft.96c

LEADED DESIGNS GLAZED CLEAR SHEET CRYSTAL

10-X-1540



10-X-1542

Prices Per Square Foot

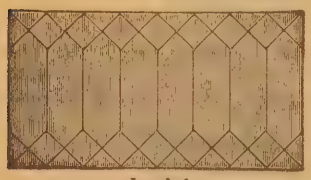
10-X-1540	95c
10-X-1542	98c
10-X-1545	$1.20
10-X-1548	98c

NOTE.—The designs on this page are made to order and on account of the skilled labor we fix a minimum charge for not less than 3 square feet of any one design.

10-X-1545

10-X-1548

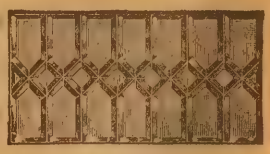
BEAUTIFUL LEADED BEVELED PLATE



Leaded
Clear Sheet Crystal
10-X-1541X
Price per sq. ft.....96c

10-X-1550X
Price per sq. ft.....$1.98

10-X-1562X
Price per sq. ft.$2.45



10-X-1553X
Price per sq. ft.....$1.95

Stairway or Door Light.
10-X-1552

Side Light for Colonial Front Entrances.
10-X-1554

10-X-1552. Per Square Foot	$2.20
10-X-1554. Per Square Foot	$2.15
10-X-1557. Per Square Foot	$2.25

Stairway or Door Light.
10-X-1557

Submit a sketch or sample for price on any kind of glass

Ribbed, Wire, Sheet Prism and Fancy Glass

The superior character of the materials we furnish is nowhere better evidenced than in our fancy glass. The four designs reproduced below easily occupy first rank, both in quality and design. The serpentine shaped, chipped and maze patterns are not made in colors. Cathedral glass can be furnished in fine green, blue and amber shades. All of these designs can be used where an obscure glass is required for a small door, transom, sash or bathroom window. In addition to their utility they are very decorative.

10-X-1598X. FLORENTINE.

10-X-1595X. CHIPPED.

10-X-1588. MAZE.

CATHEDRAL (Color Selection)

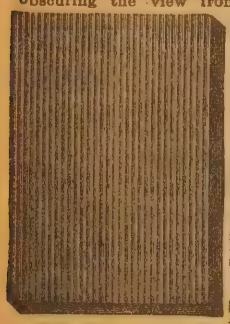
Prices per Square Foot	10-X1598X Florentine Per sq. ft.	10-X1595X Chipped Per sq. ft.	10-X-1588 Maze Per sq. ft.	10-X-1590 Cathedral (Wine) Per sq. ft.	10-X-1591 Cathedral (Green) Per sq. ft.	10-X-1593 Cathedral (Blue) Per sq. ft.	10-X-1594 Cathedral (Amber) Per sq. ft.
	35c	45c	35c	34c	34c	34c	39c

Note.—Add 50c extra for box and packing if order for glass amounts to less than $2.50.

RIBBED GLASS

Low in price. Used for any purpose where no particular fancy job is required, at the same time obscuring the view from the curious. Just the thing for **basements of apartment buildings,** factories, warehouses. As it diffuses more light than any other kind of glass (except Prism), it has proven a popular skylight glass.

Ribbed glass sold in 2 thicknesses. Would suggest the heavier grade for the larger sizes.



10-X-1583X. Ribbed glass, ⅛-inch thick. Price per square foot..... **29c**

10-X-1586X. Ribbed glass, $\frac{3}{16}$ in. thick. Price per square ft., **33c**

STRONG WIRE GLASS

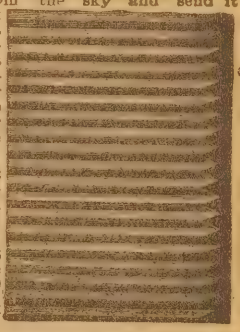
An extra heavy quality of wire glass, serves as a double protection against fire and storms and high insurance rates. Iron shutters are frequently dispensed with where wire glass windows are used. Our wire glass is heavy stock, being ¼-inch thick, well made and will last a lifetime. All glass ¼ inch thick.

10-X-1580X. Price per sq. ft.. .. **48c**

DON'T BUY LUMBER WITHOUT GETTING OUR PRICES.

SHEET PRISM GLASS. NEW, CLEAN STOCK ONLY.

The principle of Prism glass is to gather the light from the sky and send it into all parts of dark interiors. A skylight of ordinary glass merely throws the light straight down, whereas Prism diffuses or spreads the light to all sides. Used also for transom lights in store fronts.



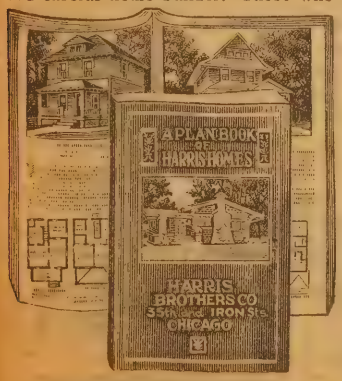
10-X-1589X. Sheet Prism glass. Price for sizes up to 42-inch high, per square foot..... **42c**

10-X-1592X. Sheet Prism glass. Price for sizes up to 60 inches high, per square ft..... **59c**

BUILD NOW! "The Harris Way"!

The Economical Saving Way!

The Harris way offers special advantages and big economy to the shrewd and careful home builder. Those who build a Harris Home are assured right from the start of safe and sane principles of construction, perfected through twenty-seven years of practical experience.



Get This Book!

Our new book of Harris Homes will show you the cost complete and the best ready cut system ever devised. Even the smallest details are thoroughly explained and easily understood from the plain illustrations and easily read descriptions. More than one hundred modern American homes with floor plans and elevations. Modest cottages, residences and bungalows of every description.

Ready Now For You

Your copy of this, our most popular, book will be mailed on request free. Ask for it now—today.

Big Snap in Front Doors

Here we offer to our customers an opportunity to buy high grade front doors at prices that we know cannot be duplicated. This is a lot of fine doors, a pattern that we have discontinued and for this reason we can offer them to our customers at such extremely low prices.

These doors are all made from strictly clear white pine lumber and are just like the illustration shown. They are glazed with a high grade of double strength glass, which is held in place with wood stops. If you are needing a front door, this design is suitable for almost any class of building. It will pay you to act quick and purchase your requirements before they are all sold.

We will gladly furnish delivered prices on these doors, glazed with plain or beveled plate glass, on request.

Size	Thicknesses	Lot Number	Glazed with D. S. Glass
2-10x6-10	1⅜ inches	10-X-250	$6.65
2-10x6-10	1¾ inches	10-X-251	6.75
2- 8x7- 0	1⅜ inches	10-X-252	6.85
2- 8x7- 0	1¾ inches	10-X-253	6.95
3- 0x7- 0	1⅜ inches	10-X-254	7.30
3- 0x7- 0	1¾ inches	10-X-256	7.40

Greenhouse Material at Low Prices

Half Size or Pony Hotbed Sash

SIZE, 3 feet x 3 feet
1⅜ inch thick

JUST WHAT YOU NEED FOR A SMALL HOTBED

Clear Oregon Fir

No. 10-X-1754. Single lots. Price each..... **$2.62**
No. 10-X-1755. Dozen lots or more. Price each..... **$2.58**
No. 10-X-1756. Lots of 50 or more. Price each..... **$2.50**

Prices of Open Hotbed Sash Clear Oregon Fir

No. 10-X-1757. Price, single lots, each..... **$1.33**
No. 10-X-1758. Price in lots of one dozen or more..... **$1.30**
No. 10-X-1759. Lots of 50 or more. Price each..... **$1.28**
Special prices on lots of 100 or more.

Painted White Hotbed Sash

Decrease Shadows and Give Life to the Plants.

25c extra for the half size sash and 40c extra for the full size sash.

We are the first on the market to offer hotbed sash painted two coats of White Paint. These sash will not only give further protection against the weather, but will also, by decreasing shadows, help the growth of the plants considerably. Isn't it worth 40c per hotbed sash to make it last twice as long as the ordinary unpainted sash?

Glass! Glass! Glass!

Special Brands of Greenhouse and Hotbed Glass packed expressly for our trade. The sizes listed below represent only a few of the best sellers. We carry a large stock of glass for prompt shipment. Get our prices before you buy.

Standard quality. Large stock on hand. Packed strong. Safe delivery guaranteed.

Lot Number	Size Inches	Price Per Box	No. Lights in Box
10-X-1707....	7x 9....	$8.30.....	114
10-X-1708....	8x10....	8.40.....	90
10-X-1709....	9x12....	8.50.....	67
10-X-1710....	10x14....	8.60.....	51
10-X-1711....	16x18....	8.80.....	25

Here are 15 points of superiority analyzed. Read them over carefully and be convinced. But greater than these 15 points of superiority are our low prices.

1. Four rows of glass.
2. Extra strong bars.
3. All joints extra strong mortised and tenoned.
4. Standard size glass (costs less to replace).
5. Glass set by hand.
6. Best linseed oil putty.
7. Large triangular zinc glazing points.
8. Extra size tacks to hold glass in place.
9. Extra deep rabbet.
10. Wood — Clear, well seasoned, close-grain White Pine.
11. Primed in lead and oil.
12. Strengthened by heavy brads.
13. Largest number of strength-giving qualities.
14. Smallest number of shadow-casting bracing devices.
15. Quick shipment from Chicago.

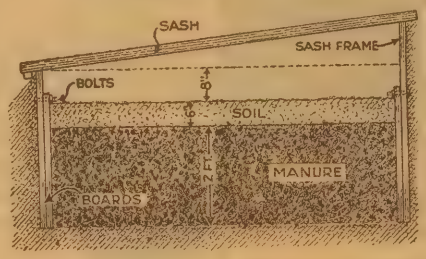
WHY FOUR-ROW SASH ARE BEST

Practical greenhouse men applying common sense to their business will readily concede that the standard size sash, 3 ft. x 6 ft., made with four rows of glass, makes the ideal hotbed or greenhouse. If the stiles, rails and bars were made narrow like the ones in sash made with five rows of glass, you would have a little more glass space to begin with but less glass to end with because such sash lack the strength and rigidity necessary to support the weight of 20 lbs. of glass. That is the very reason such sash require bracing. And such bracing bars cast an extra amount of shade and cost an extra amount of money. Our four-row sash doesn't need bracing; furthermore, because of many lights being shorts, there are more laps—and laps harbor dirt—and dirt casts shade. There you are. You will take the four-row sash with standard glass every time.

In the five-row sash, if the narrow bars are not braced there is danger of spreading in one row and danger of contraction in another. Result? Breakage of glass and loosening of putty. No, you can't use the five-row sash at any price. About sash made with three rows of 10-in. glass. There is a decided disadvantage because the price is higher to start with and they only have 2 center bars and cost twice as much to repair broken glass. The bars cannot be made heavier than the ones in our four-row sash because this will weaken the stiles or side pieces, which are narrow enough already. You are safer with the superior kind, and why shouldn't you buy them when you can get them for less money.

Our sashes are made of clear stock primed in lead and oil. An extra deep rabbet means an extra amount of putty protection. Glass is set and pointed by hand, using large triangle tins and extra size tacks. And last but not least our hotbed sash are shipped from our Chicago warehouse, assuring better service than you could possibly obtain from any other point. Eastern customers especially should take this into consideration.

How to Make a Hotbed



Commuters and other country folk who are fond of Chinese Gardens, make your garden pay by making a Hotbed.

Illustration shows how simple it is to make a hotbed. You should dig your pit 2 ft. deep and as long as you wish to make the hotbed. Board up the sides with 1 in. or 1¼ in. lumber. The frame should be made in two sections. The lower section about 18 in. high all around, and the top section should be 16 in. at the back and 8 in. in the front. This will give a slope of 8 in. to shed the rain. Place fresh manure in the pit to a depth of about 18 or 20 inches, then put the hotbed sash on and let them remain for 3 or 4 days, then cover with soil as rich as you can get. Let it stand for 5 or 6 days longer, depending upon the temperature. Soil should be about 6 in. from the glass at the lowest point. Hotbeds should be made about two weeks before seeding.

Be sure and raise your sash a little every morning for ventilation, but not far enough so that the cold air can flow directly on the plants, and as soon as the sun sets close the sash over night to retain the heat. To obtain best results the bed should be given a southern exposure and be protected from the north wind.

Full Size Hotbed Sash

Size, 3 feet x 6 feet
1⅜ inch thick
Clear Oregon Fir

No. 10-X-1701. Single lots. Price each..... **$4.75**
No. 10-X-1702. Dozen lots or more. Price each..... **$4.68**
No. 10-X-1703. Lots of 50 or more. Price each..... **$4.58**

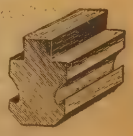
Prices of Open Hotbed Sash Clear Oregon Fir

No. 10-X-1704. Price, single lots. Each..... **$2.07**
No. 10-X-1705. Price in lots of 1 dozen or more..... **$2.02**
No. 10-X-1706. Lots of 50 or more. Price each..... **$1.98**
SPECIAL PRICES ON LOTS OF 100 OR MORE

Sash Bars

INSIDE SASH BAR

No. 10-X-8435



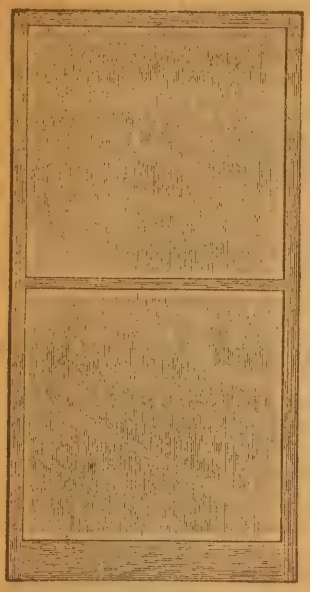
Used between Glass. Size 1⅜x2½. Price per 100 running feet **$4.50**

END SASH BAR

No. 10-X-8436

Used at end of Hotbed. Has but one square shoulder for sash to rest upon. Size 1⅜x 2½. Price 100 running feet. **$4.50**

Storm Sash and Doors Buy Now!



Two Light Storm Sash

Glazed and Primed, Thickness 1 1-8 Inch

Storm Sash are great Fuel Savers. Manufactured of Clear California White Pine and guaranteed to be of the best manufacture. All sash are primed in a Linseed Oil compound, which makes painting much easier and the wood last longer. All listed sizes are carried in stock and we can ship promptly.

No. 10X89 Size of Glass	Will Fill Opening Wd. Ft. In.	Ht. Ft. In.	Price Glazed Single Strength Glass	Price Glazed Double Strength Glass
12x20	1-	4⅛x3-11½	$1.65	.....
12x22	1-	4⅛x4- 3½	1.74	.....
12x24	1-	4⅛x4- 7½	1.89	.....
12x28	1-	4⅛x5- 3½	2.14	.....
14x24	1-	6⅛x4- 7½	2.10	.....
14x28	1-	6⅛x5- 3½	2.44	.....
14x30	1-	6⅛x5- 7½	2.56	.....
16x20	1-	8⅛x3-11½	1.98	$2.44
16x22	1-	8⅛x4- 3½	2.17	2.66
16x24	1-	8⅛x4- 7½	2.26	2.81
16x26	1-	8⅛x4-11½	2.53	3.26
16x28	1-	8⅛x5- 3½	2.65	3.45
16x30	1-	8⅛x5- 7½	2.81	3.63
16x32	1-	8⅛x5-11½	2.99	3.87
16x36	1-	8⅛x6- 7½	3.23	4.24
18x20	1-	10⅛x3-11½	2.17	2.68
18x24	1-	10⅛x4- 7½	2.53	3.26
18x26	1-	10⅛x4-11½	2.78	3.60
18x28	1-	10⅛x5- 3½	2.93	3.79
18x30	1-	10⅛x5- 7½	3.08	4.06
20x20	2-	0⅛x3-11½	2.44	3.14
20x22	2-	0⅛x4- 3½	2.62	3.42
20x24	2-	0⅛x4- 7½	2.78	3.60
20x26	2-	0⅛x4-11½	2.93	3.81
20x28	2-	0⅛x5- 3½	3.08	4.06
20x30	2-	0⅛x5- 7½	3.22	4.33
20x32	2-	0⅛x5-11½	3.63	4.79
20x34	2-	0⅛x6- 3½	3.66	4.82
22x24	2-	2⅛x4- 7½	$2.93	$3.81
22x26	2-	2⅛x4-11½	3.08	4.06
22x28	2-	2⅛x5- 3½	3.26	4.33
22x30	2-	2⅛x5- 7½	3.47	4.76
22x32	2-	2⅛x5-11½	3.87	5.19
22x36	2-	2⅛x6- 7½	4.33	5.80
24x20	2-	4⅛x3-11½	2.78	3.60
24x24	2-	4⅛x4- 7½	3.26	4.30
24x26	2-	4⅛x4-11½	3.50	4.73
24x28	2-	4⅛x5- 3½	3.57	4.76
24x30	2-	4⅛x5- 7½	3.84	5.12
24x32	2-	4⅛x5-11½	4.33	5.76
24x34	2-	4⅛x6- 3½	4.36	5.80
24x36	2-	4⅛x6- 7½	4.76	6.37
26x24	2-	6⅛x4- 7½	3.26	4.33
26x26	2-	6⅛x4-11½	3.57	4.76
26x28	2-	6⅛x5- 3½	3.93	5.25
26x30	2-	6⅛x5- 7½	4.27	5.73
26x32	2-	6⅛x5-11½	4.33	5.80
26x34	2-	6⅛x6- 3½	5.03	6.77
26x36	2-	6⅛x6- 7½	5.06	6.80
28x24	2-	8⅛x4- 7½	3.57	4.76
28x26	2-	8⅛x4-11½	3.90	5.22
28x28	2-	8⅛x5- 3½	4.27	5.73
28x30	2-	8⅛x5- 7½	4.30	5.76
28x32	2-	8⅛x5-11½	5.03	6.77
28x36	2-	8⅛x6- 7½	5.61	6.80
30x24	2-	10⅛x4- 7½	3.84	5.12
30x26	2-	10⅛x4-11½	4.27	5.73
30x28	2-	10⅛x5- 3½	4.30	5.76
30x30	2-	10⅛x5- 7½	5.46	6.74
30x32	2-	10⅛x5-11½	5.52	6.80
30x36	2-	10⅛x6- 7½	6.16	7.66
32x24	3-	0⅛x4- 7½	4.33	5.76
32x28	3-	0⅛x5- 3½	5.03	6.77
32x30	3-	0⅛x5- 7½	5.52	6.80
34x28	3-	2⅛x5- 3½	5.06	6.80
34x30	3-	2⅛x5- 7½	6.13	7.63
36x28	3-	4⅛x5- 3½	5.61	7.63
40x28	3-	8⅛x5- 3½	.....	8.75
44x28	4-	0⅛x5- 3½	.....	9.64
44x30	4-	0⅛x5- 7½	.....	11.22

Ventilators in Bottom, 15 cents extra.

Four Light Storm Sash

Glazed and Primed

Thickness 1 1-8 Inch

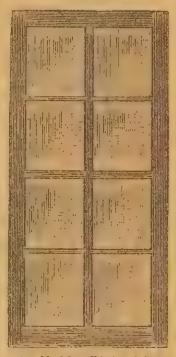
10-X-91—Four Light

No. 10-X-91 Size of Glass	Will Fill Opening Width Ft. In.	Height Ft. In.	Price Glazed Single Strength Glass
10x20	2-	1x3-11½	$2.44
10x22	2-	1x4- 3½	2.59
10x24	2-	1x4- 7½	2.78
10x26	2-	1x4-11½	2.99
10x28	2-	1x5- 3½	3.17
10x30	2-	1x5- 7½	3.36
10x32	2-	1x5-11½	3.72
12x20	2-	5x3-11½	2.75
12x22	2-	5x4- 3½	2.96
12x24	2-	5x4- 7½	3.23
12x26	2-	5x4-11½	3.42
12x28	2-	5x5- 3½	3.66
12x30	2-	5x5- 7½	4.06
12x32	2-	5x5-11½	4.27
12x34	2-	5x6- 3½	4.45
12x36	2-	5x6- 7½	4.64
14x20	2-	9x3-11½	3.02
14x22	2-	9x4- 3½	3.42
14x24	2-	9x4- 7½	3.63
14x26	2-	9x4-11½	3.78
14x28	2-	9x5- 3½	4.36
14x30	2-	9x5- 7½	4.54
14x32	2-	9x5-11½	4.82
14x34	2-	9x6- 3½	5.09
15x30	2-	11x5-7½	4.97

Ventilators in Bottom, 15 cents extra.

Eight Lights—Glazed and Primed

1 1-8 Inch Thick

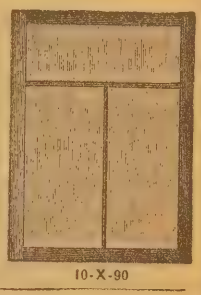


10-X-93—Eight Light

No. 10-X-93 Size of Glass	Will Fill Opening Width Ft. In.	Height Ft. In.	Price Glazed Single Strength Glass
8x10	1-	9x3-11½	$2.17
9x12	1-	11x4- 7½	2.59
10x12	2-	1x4- 7½	2.78
10x14	2-	1x5- 3½	3.08
10x16	2-	1x5-11½	3.72
12x14	2-	5x5- 3½	3.63
12x16	2-	5x5-11½	4.06
14x16	2-	9x5-11½	4.58

Three Light Cottage Front Storm Sash

1 1-8 Inch Thick



10-X-90

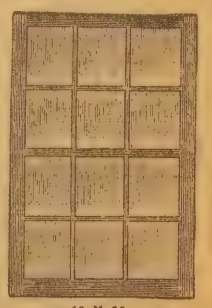
No. 10-X-90 Size of Glass Bottom	Top	Will Fill Opening Width Ft. In.	Height Ft. In.	Price Glazed Double Strength Glass
40x40	40x14	3-	8⅛x5- 1½	$9.44
40x42	40x14	3-	8⅛x5- 3½	9.02
40x40	40x16	3-	8⅛x5- 3½	9.55
40x44	40x16	3-	8⅛x5- 7½	9.42
44x40	44x16	4-	0⅛x5- 3½	9.62
44x44	44x16	4-	0⅛x5- 7½	10.15
44x48	44x16	4-	0⅛x5-11½	11.79
44x46	44x18	4-	0⅛x5-11½	10.47
44x50	44x18	4-	0⅛x6- 3½	12.47

Ventilators in Bottom, 15 cents extra.

Twelve Light Storm Sash

Glazed and Primed

1 1-8 Inch Thick



10-X-92

No. 10-X-92 Size of Glass	Will Fill Opening Width Ft. In.	Height Ft. In.	Price Glazed Single Strength Glass
8x10	2-	4½x3-11½	$2.93
9x12	2-	7½x4- 7½	3.54
9x14	2-	7½x5- 3½	3.93
10x12	2-	10½x4- 7½	3.81
10x14	2-	10½x5- 3½	4.24
10x16	2-	10½x5-11½	5.12
12x14	3-	4½x5- 3½	5.15
12x16	3-	4½x5-11½	5.64
12x18	3-	4½x6- 7½	6.25

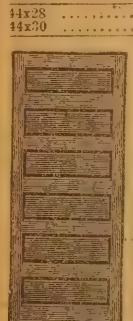
Ventilators in Bottom, 15 cents extra.

Storm Doors

Guaranteed the Best Manufactured

Hand Painted, Hand Grained

Thickness 1 1-8 Inch



No. 10-X-1720

No. 10-X-1721

Regular Door Size Ft. In.	Ft. In.	Size of Our Storm Doors Ft. In.	Ft. In.	10-X-1720 Painted	10-X-1721 Glazed D. S. Painted
2- 6x6- 6	....	2- 6¾x6- 7	....	$5.25	$6.33
2- 8x6- 8	....	2- 8¾x6- 9	....	5.35	6.66
2-10x6-10	....	2-10¾x6-11	....	6.48	8.00
2- 8x7- 0	....	2- 8¾x7- 1	....	6.82	8.32
2-10x7- 0	....	2-10¾x7- 1	....	6.85	8.50
3- 0x7- 0	....	3- 0¾x7- 1	....	6.90	8.64

For Grain Doors add 30c net.

DEADENING FELT

$2.85 Per Roll

10-X-99—150 Rolls Deadening Felt. This is a No. 1 Grade Felt. Made of the finest selected grade of wool felt, soft and pliable. The edges of each roll are slightly jammed and soiled. Weight per square yard, 1 pound; approximately 50 pounds to roll, and 36 in. wide.

Price per roll..... $2.85

Combination Screen and Storm Doors

SPECIAL SIZES AND DESIGNS QUOTED ON APPLICATION

BUY one and save time, money and labor. An opportunity to procure two doors at the cost of one. Our Combination Screen and Storm Doors are of the very latest construction. They are equipped with improved metal fasteners, which make changing from Screen Door to Storm Door very simple. There are no screws, bolts or nails to bother with. By the old method, two hours' work or more is required to take a door off its hinges and put on another in place. Our Combination Doors have reduced this time of operation to a few minutes, and it is so simple that a child can make the change.

Our "Leader" door is only carried in stock painted Gray. The Presto Change Doors are furnished not finished, also finished in oil and varnish. We use nothing but White Pine in the manufacture of our combination doors.

"Leader" Combination Screen and Storm Door

A good substantial door, made from our surplus stock of White Pine Lumber used in the manufacture of our high-grade Doors, which will not pass our critical inspection for oil finish, but which is very satisfactory for paint. These doors are made with stiles 1⅛x3¾. The opening for the storm and screen sections is 43⅜ inches high in all doors. The storm section is divided into four (4) lights, and is glazed with Single Strength Glass, while the Screen Section is covered with 12-mesh Black Wire. We carry these doors in stock Painted Gray ONLY.

We are in a position to furnish our "Leader" door in any size. Special sizes and designs quoted upon application.

OUR "LEADER" COMBINATION SCREEN AND STORM DOOR, No. 10-X-1753. Painted Gray, Stiles 1⅛x3¾, Storm Section Glazed four (4) lights Single Strength Glass, Screen Section covered with twelve (12) mesh Black Wire.

PRICES

Regular Door Size, Ft. In. Ft. In.	Our "Leader" Door Size, Ft. In. Ft. In.	Prices, Ea., Pt. Gray. 10-X-1753
2-6 x6-6	2-6¼ x6-7	$6.52
2-8 x6-8	2-8¼ x6-9	6.80
2-8 x7-0	2-8¼ x7-1	6.90
2-10x6-10	2-10¼x6-11	7.05
2-10x7-0	2-10¼x7-1	7.10
3-0 x7-0	3-0¼ x7-1	7.45

Presto-Change Improved Wonder Door

TWO HIGH GRADE DOORS FOR THE PRICE OF ONE

PRESTO-CHANGE Doors are made of Clear White Pine, being 1⅛ inches in thickness. All joints are mortised and tenoned. Steel Dowels prevent sagging. The sections are made as strong as the door itself, with mortised and tenoned joints, glued and pinned. Each door is furnished with two removable sections of the same size; one being the storm section, and the other the screen section. The storm section can be furnished in two different designs as illustrated—"A" and "AA"—and the screen section in one style. The opening for the removable panels is 4 feet 8½ inches high in all doors. The removable sections and openings in door are both rabbeted so that when section is in place there is a double lap joint which, together with improved fasteners, makes the door dust-proof and weather-proof.

These doors are made up and carried in stock for the following standard door sizes. Mention size when ordering.

Each door includes Glass Storm Section and Galvanized Wire Screen Section.

PRICES

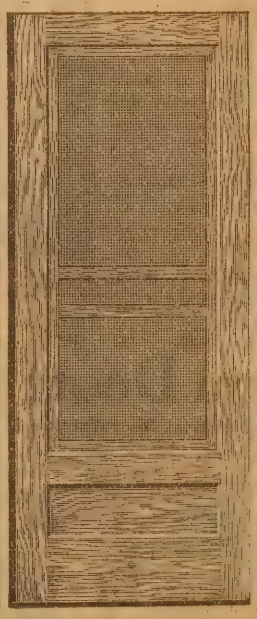
Regular Door Size Ft. In. Ft. In.	"Presto-Change" Door Size Ft. In. Ft. In.	10-X-1750 With Storm Section "A" Clear W. Pine Not Varnished	10-X-1751 With Storm Section "AA" Clear W. Pine Not Varnished	10-X-1752 With Storm Section "A" Painted Two Coats of Gray
2' 8" x 6' 8"	2' 8¾" x 6' 9"	$7.82	$8.30	$7.74
2' 8" x 7' 0"	2' 8¾" x 7' 1"	7.88	8.44	7.84
2' 10" x 6' 10"	2'10¾" x 6'11"	8.09	8.57	8.05
2' 10" x 7' 0"	2'10¾" x 7' 1"	8.15	8.64	8.10
3' 0" x 7' 0"	3' 0¾" x 7' 1"	8.45	8.88	8.42

If 10-X- 1750 and 10-X-1751 are wanted finished natural 2 coats exterior varnish, add 50c net per door extra.

These prices are f.o.b. cars Chicago or Wisconsin factory. Doors will be packed and crated with screen section in place and storm section separate.

We make combination screen and storm doors in any size and design, and if our designs do not meet with your approval, send us a cut or description of what you want, and we will name you a price that will mean a saving to you.

"Presto-Change" With Storm Section "A" in Place
No. 10-X-1750



"Presto-Change" With Screen Section in Place

"Presto-Change" With Storm Section "AA" in Place
No. 10-X-1751

60 Big Values in Rugs and Floor Coverings!! Ask for Our New Furniture Book. HARRIS BROTHERS CO. 35th and Iron Streets, Chicago.

Stock Size Window Screens

Dependable Quality

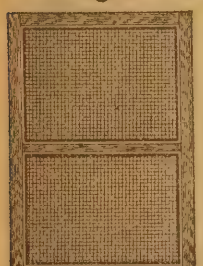
Order Now—Quick Shipment

Full Size Window Screens at Wholesale Prices. Almost one hundred (100) popular sizes from which to make your selection. Protect your health and home with high-grade screens, at **lower-than-ever-prices.** Steal a march on the "Fly" and send us your order Right Now. A few minutes of time **now** will save you weeks of delay and anxiety later on during the rush season. Made from thoroughly kiln dried Lumber. Wide 2 in. tiles and top rails and 3 in. bottom rails which are added features. The joints are mortised and tenoned in order to prevent warping and sagging. The wire used, either Black, Galvanized or Copper Bronze, is of the highest grade and is stretched and fastened to the frame with a beaded moulding which is neatly mitred and fitted in place, producing a well made, substantial screen.

Our Black Wire Screens will stand the weather better, and will last longer than any other Black Wire Screen on the market, providing it is given a coat of our Black Mineral Paint every year. Our Copper Bronze Wire Screens will never rust, and will give satisfactory service for years without painting.

For Special and Intermediate sizes see our Made-to-Order Window Screens.

Two Light Window Screen



90c AND UP

These screens are made full size and will cover entire window. Prices shown are for Black, Galvanized and Copper Bronze Wire. They are 1⅛" thick.

Special: The Black Wire used in the manufacture of our screens is a High-Grade Steel Wire covered with Black Enamel. Our Galvanized Wire is a High-Grade Steel Wire heavily galvanized. The Copper Bronze Wire is a composition of Copper and Bronze, which produces a durable and non-rusting wire. All the Wire is Standard 12-Mesh.

All screens covered with black wire are furnished painted black. Balance can be furnished not painted or painted black. If you want the screens painted gray or white, write for special prices.

Full Size Screens 1⅛-inch Thickness To Fit Two-Light Windows

Size of Glass in Windows 2 Lights	Will Fill Opening Ft.	In.	Ft.	In.	10-X-527 Covered with Black Wire	10-X-528 Covered with Galvanized Wire	10-X-529 Covered with Copper Bronze Wire
12x20	1	4⅛	x3	11½	$0.90	$1.13	$2.15
12x24	1	4⅛	x4	7½	.99	1.17	2.30
12x28	1	4⅛	x5	3½	1.04	1.25	2.59
12x30	1	4⅛	x5	7½	1.06	1.31	2.76
14x20	1	6⅛	x3	11½	.99	1.20	2.42
14x24	1	6⅛	x4	7½	1.04	1.25	2.59
14x28	1	6⅛	x5	3½	1.06	1.36	2.84
16x20	1	8⅛	x3	11½	.99	1.22	2.44
16x24	1	8⅛	x4	7½	1.06	1.27	2.61
16x26	1	8⅛	x4	11½	1.13	1.33	2.68
16x28	1	8⅛	x5	3½	1.20	1.44	2.93
16x30	1	8⅛	x5	7½	1.27	1.74	3.17
18x20	1	10⅛	x3	11½	1.06	1.24	2.70
18x24	1	10⅛	x4	7½	1.20	1.40	3.00
18x26	1	10⅛	x4	11½	1.27	1.48	3.17
18x28	1	10⅛	x5	3½	1.32	1.52	3.34
18x80	1	10⅛	x5	7½	1.39	1.63	3.51
20x20	2	0⅛	x3	11½	1.06	1.35	2.68
20x24	2	0⅛	x4	7½	1.27	1.48	3.17
20x26	2	0⅛	x4	11½	1.32	1.52	3.31
20x28	2	0⅛	x5	3½	1.46	1.71	3 67
20x30	2	0⅛	x5	7½	1.59	1.86	4.00
22x20	2	2⅛	x3	11½	1.20	1.40	3.00
22x24	2	2⅛	x4	7½	1.39	1.63	3.50
22x26	2	2⅛	x4	11½	1.46	1.71	3.67
22x28	2	2⅛	x5	3½	1.59	1.86	4.00
22x30	2	2⅛	x5	7½	1.66	1.94	4.17
24x18	2	4⅛	x3	11½	1.19	1.40	3.00
24x20	2	4⅛	x3	7½	1.27	1.48	3.17
24x22	2	4⅛	x4	3½	1.39	1.63	3 50
24x24	2	4⅛	x4	7½	1.46	1.71	3.67
24x26	2	4⅛	x4	11½	1.59	1.86	4.00
24x28	2	4⅛	x5	3½	1.66	1.94	4.17
24x30	2	4⅛	x5	7½	1.79	2.09	4.51
24x32	2	4⅛	x5	11½	1.85	2.17	4.67

Size of Glass in Windows 2 Lights	Will Fill Opening Ft.	In.	Ft.	In.	10-X-527 Covered with Black Wire	10-X-528 Covered with Galvanized Wire	10-X-529 Covered with Copper Bronze Wire
26x24	2	6⅛	x4	7½	$1.59	$1.86	$4.00
26x26	2	6⅛	x4	11½	1.66	1.94	4.17
26x28	2	6⅛	x5	3½	1.79	2.09	4.51
26x30	2	6⅛	x5	7½	1.92	2.24	4.84
26x32	2	6⅛	x5	11½	1.99	2.33	5.00
28x20	2	8⅛	x3	11½	1.46	1.71	3.74
28x24	2	8⅛	x4	7½	1.66	1.94	4.17
28x26	2	8⅛	x4	11½	1.79	2.09	4.51
82x28	2	8⅛	x5	3½	1.92	2.24	4.84
28x30	2	8⅛	x5	7½	2.06	2.42	5.18
28x32	2	8⅛	x5	11½	2.11	2.48	5.33
30x24	2	10⅛	x4	7½	1.79	2.09	4.51
30x26	2	10⅛	x4	11½	1.92	2.24	4.84
30x28	2	10⅛	x5	3½	2.06	2.42	5.18
80x30	2	10⅛	x5	7½	2.18	2.56	5.50
30x32	2	10⅛	x5	11½	2.25	2.63	5.67
32x24	3	0⅛	x4	7½	1.90	2.17	4.67
32x26	3	0⅛	x4	11½	1.99	2.33	4.99
32x28	3	0⅛	x5	3½	2.11	2.48	5.33
32x30	3	0⅛	x5	7½	2.25	2.63	5.67
32x32	3	0⅛	x5	11½	2.39	2.79	6.00
36x24	3	4⅛	x4	7½	2.11	2.48	5.38
36x26	3	4⅛	x4	11½	2.25	2.63	5.67
36x28	3	4⅛	x5	3½	2.39	2.79	6.00
36x30	3	4⅛	x5	7½	2.52	2.95	6.34
36x32	3	4⅛	x5	11½	2.65	3.10	6.67
40x24	3	8⅛	x4	7½	2.32	2.71	5.95
40x26	3	8⅛	x4	11½	2.46	2.88	6.17
40x28	3	8⅛	x5	3½	2.65	3.10	6.67
40x30	3	8⅛	x5	7½	2.78	3.26	7.00
40x32	3	8⅛	x5	11½	3.79	3.42	7.33
44x24	4	0⅛	x4	7½	2.52	2.95	6.54
44x28	4	0⅛	x5	3½	2.84	2.33	7.18
44x30	4	0⅛	x5	7½	3.05	3.58	7.67
44x32	4	0⅛	x5	11½	3.17	3.73	8.00

For prices on Half-Size Window Screens see our Made-to-Order Screens, priced and described on the following page.

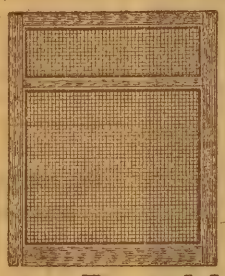
Four Light Window Screens

$1.14 AND UP

Full Size Screens to fit Four Light Windows. Thickness 1⅛ in., priced with black, galvanized and copper bronze wire.

Size of Glass in Windows Four Lights	Will Fill Opening Ft.	In.	Ft.	In.	10-X-557 Covered with Black Wire	10-X-558 Covered with Galvanized Wire	10-X-559 Covered with Copper Bronze Wire
0x20	2	1x3	11½		$1.14	$1.40	$3.00
0x24	2	1x4	7½		1.39	1.63	3.51
0x26	2	1x4	11½		1.46	1.71	3.66
0x28	2	1x5	3½		1.59	1.86	4.00
0x30	2	1x5	7½		1.66	1.94	4.17
2x20	2	5x3	11½		1.32	1.55	3.34
2x24	2	5x4	7½		1.59	1.86	4.00
2x26	2	5x4	11½		1.66	1.94	4.17
2x28	2	5x5	3½		1.79	2.09	4.51
2x30	2	5x5	7½		1.92	2.25	4.84
2x32	2	5x5	11½		1.99	2.33	5.00
4x20	2	9x3	11½		1.53	1.79	3.84
4x24	2	9x4	7½		1.79	2.09	4.51
4x26	2	9x4	11½		1.92	2.25	4.84
4x28	2	9x5	3½		2.05	2.40	5.19
4x30	2	9x5	7½		2.13	2.56	5.50
4x32	2	9x5	11½		2.20	2.76	5.67

Cottage Window Screens



Full Size Screens to Fit Cottage Windows, thickness 1⅛ in. Made like cut. Priced with black, galvanized and copper bronze wire.

Size of Bottom Glass in Windows	Size of Top Glass in Windows	Will Fill Opening Ft. In. Ft. In.	10-X-585 Black with Covered Wire	0-X-586 Covered with Galvanized Wire	10-X-587 Covered with Bronze Wire
40x40	40x16	3-8x5- 3½	$2.65	3.11	$6.67
40x42	40x14	3-8x5- 3½	2.65	3.11	6.67
40x44	40x16	3-8x5- 7½	2.79	3.27	7.00
44x40	44x16	4-0x5- 3½	2.84	3.35	7.18
44x44	44x16	4-0x5- 7½	3.05	3.58	7.67
44x48	44x16	4-0x5-11½	3.17	3.73	8.00
44x50	44x18	4-0x6- 3½	3.38	3.97	8.50

Durable Porch Screens

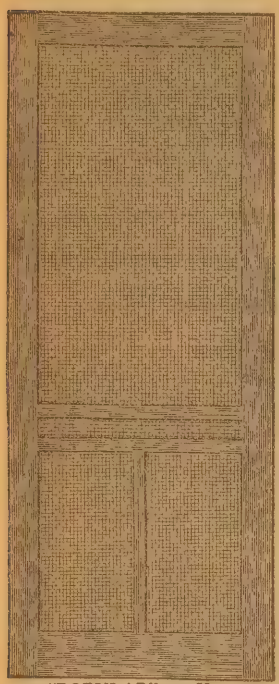
94c PER FT. AND UP

Here is your opportunity to enjoy Spring and Summer air right on your porch. Plan that extra sitting room on the front porch and that breakfast room on the rear porch right now. These Porch Screens are 1⅛ in. thick, and are made to order only.

Height of Opening to be Filled	10-X-553 Price per Lineal or Running Foot Black Wire	10-X-554 Price per Lineal or Running Foot Galvanized Wire	10-X-562 Price per Lineal or Running Foot Copper Bronze Wire
6 feet	$0.94	$1.06	$2.42
8 feet	1.24	1.35	3.16
9 feet	1.38	1.52	3.30
10 feet	1.55	1.78	4.02

Furnished in Black Wire, Galvanized and Copper-Bronze Wire.

High Grade Screen Doors



"POPULAR"—10-X-501

The lumber used in the manufacture of our Door and Window Screens is carefully selected for the purpose, thoroughly seasoned and kiln dried.

BEST CONSTRUCTION

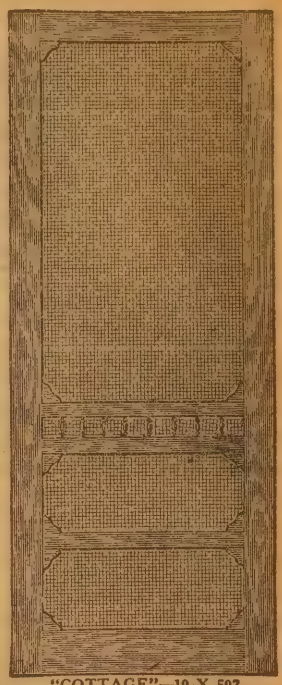
In the manufacture of Screens, our factory uses great care not only in the selection of material but in putting it together. All our Doors are made with dowel joints and we use heavy hardwood corrugated dowels, well glued. They are much stronger than the ordinary screen doors, sold by retailers. The cross rails are blind-tenoned into the stiles and not mortised through, giving the water no chance to soak in, therefore prevents rotting.

While screens are primarily an article of necessity and not intended for ornamentation, nevertheless, we believe in making our designs as neat and attractive as possible. The wire cloth is put on by special machinery, stretched drum-head tight and securely tacked. Covered with bead mould, except the "Mission" and "Supreme" doors which have raised mitred mouldings. The **black enamel** cloth that we use is made from hard steel wire, coated with a durable enamel, baked on. If repainted occasionally, it will last for years.

The **Aluminoid Rustless** wire cloth furnished for our "Supreme" Doors is made of very hard steel wire, electroplated with a rust-proof composition of zinc and aluminum. It is finished with a high grade transparent weather-resisting varnish and far excels ordinary galvanized cloth in wearing qualities.

The **Antique Bronze** wire cloth is made from 90 per cent pure copper-finished in rich antique color which requires no painting. It will not rust and we recommend its use in preference to bright copper cloth on account of its subdued color.

All Doors shown here are made with stiles and rails, 1⅛ inches thick and manufactured from choice selected Soft Arkansas Pine lumber, with the exception of No. 10-X-526, which is made of kiln-dried Oak.



"COTTAGE"—10-X-502

Width. Height.	Price, Each
2′ 6″ x 6′ 6″	$2.18
2′ 8″ x 6′ 8″	2.27
2′ 10″ x 6′ 10″	2.38
2′ 8″ x 7′ 0″	2.34
2′ 10″ x 7′ 0″	2.38
3′ 0″ x 7′ 0″	2.50

"POPULAR" Screen Door **10-X-501** is made of selected Soft Arkansas Pine, Stained Walnut. Covered with Black Wire Cloth. Stiles and rails 1⅛ inches thick.

"COTTAGE" Screen Door **10-X-502** is made of selected Soft Arkansas Pine, Finished Natural, two coats varnish. Covered with Black Wire Cloth. Stiles and rails 1⅛ inches thick.

Width. Height.	Price, Each
2′ 6″ x 6′ 6″	$3.34
2′ 8″ x 6′ 8″	3.48
2′ 10″ x 6′ 10″	3.63
2′ 8″ x 7′ 0″	3.57
2′ 10″ x 7′ 0″	3.69
3′ 0″ x 7′ 0″	3.78

"FAVORITE"

"FAVORITE"

No. 10-X-518.

1⅛-inch thick. Made of Selected Soft Arkansas Pine—Finished Natural. Two Coats Varnish. Covered with Black Wire Cloth.

Width. Height.	Each.
2′ 6″ x 6′ 6″	$3.18
2′ 8″ x 6′ 8″	3.30
2′10″ x 6′10″	3.45
2′ 8″ x 7′ 0″	3.40
2′10″ x 7′ 0″	3.49
3′ 0″ x 7′ 0″	3.57

"MISSION"

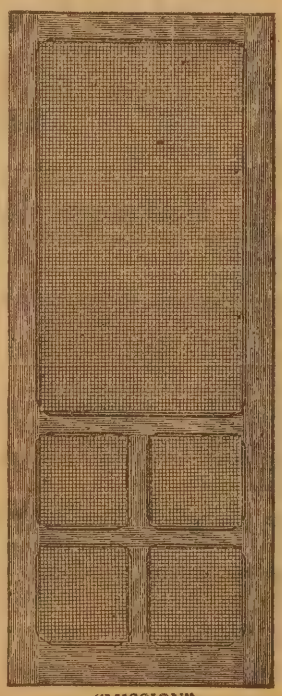
Made of Selected Soft Arkansas Pine. 1⅛-inch thick. Very Substantial. Finished Natural, Two Coats Extra Quality Varnish.

No. 10-X-505. Covered with Black Wire Cloth.

Width. Height.	Each.
2′ 6″ x 6′ 6″	$4.40
2′ 8″ x 6′ 8″	4.66
2′10″ x 6′10″	4.88
2′ 8″ x 7′ 0″	4.76
2′10″ x 7′ 0″	4.96
3′ 0″ x 7′ 0″	5.06

No. 10-X-505½. Covered with Galvanized Wire Cloth.

Width. Height.	Each.
2′ 6″ x 6′ 6″	$4.96
2′ 8″ x 6′ 8″	5.00
2′10″ x 6′10″	5.29
2′ 8″ x 7′ 0″	5.10
2′10″ x 7′ 0″	5.34
3′ 0″ x 7′ 0″	5.45



"MISSION"

"SUPREME"

(With solid raised panel)

No. 10-X-525. Selected Soft Arkansas Pine, 1⅛ inch thick. Finished Natural. Two Coats Extra Quality Varnish. Aluminoid Rustless Wire Cloth.

Width. Height.	Each.
2′ 8″ x 6′ 8″	$4.19
2′10″ x 6′10″	4.57
2′ 8″ x 7′ 0″	4.44
2′10″ x 7′ 0″	4.64
3′ 0″ x 7′ 0″	4.75

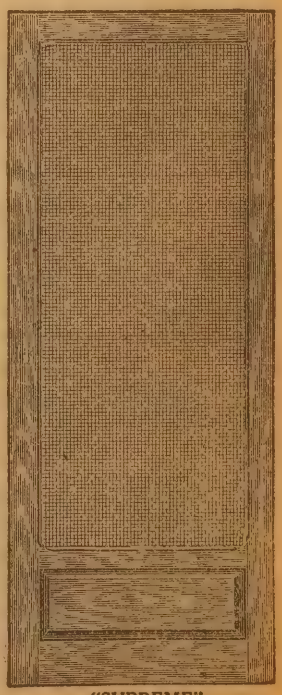
"SUPREME"

SOLID OAK

The Screen Door of Quality

No. 10-X-526. Made of Kiln-dried Oak. In the white (unfinished) or golden gloss finish. 1⅛ inch thick. Very strong and substantial. Antique Bronze Wire Cloth. Extremely distinctive in appearance.

Width. Height.	Each.
2′ 8″ x 6′ 8″	$9.95
3′ 0″ x 7′ 0″	10.35

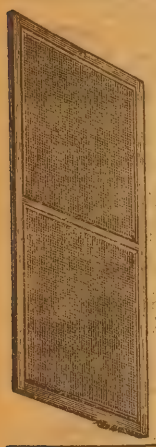


"SUPREME"

See Our Big Special Closet Outfit Bargains!

Best Made to Order Window Screens

"STANDARD" WINDOW SCREENS



Our "STANDARD" Window Screens are well made from carefully selected materials. Close-fitting joints. Strongly built in every way.

Save you doctor bills, save the lives of yourself and children. Danger lurks in the hairy, clinging feet of the common house fly. **Millions** of disease breeding **germs** are carried into your home, **contaminating** your food, and the entire list of ravaging fevers are liable to follow, to which children are especially susceptible. **And not only that,** but what a nuisance they are. Shut out these pests, and keep them out by using our **custom-made screens.**

"STANDARD" Screens are made to order only, either full size or half size. The half screens are grooved at the sides for slides. Slides are included in the prices quoted. Furnished in three grades of wire as listed.

Our "STANDARD" Window Screens are furnished painted Black or Unpainted.

PRICES PER SQUARE FOOT FOR WINDOW SCREENS MEASURING FROM OUTSIDE TO OUTSIDE

No.		Thickness	
10-X-506.	Full size, Black Wire Cloth	⅞"	18c
10-X-507.	Half size, Black Wire Cloth	⅞"	18½c
10-X-508.	Full size, Black Wire Cloth	1⅛"	19c
10-X-509.	Half size, Black Wire Cloth	1⅛"	20c
10-X-510.	Full size, Galvanized Wire	⅞"	20c
10-X-511.	Half size, Galvanized Wire	⅞"	21c
10-X-512.	Full size, Galvanized Wire	1⅛"	21c
10-X-513.	Half size, Galvanized Wire	1⅛"	22c
10-X-514.	Full size, Coppered Bronze Wire	⅞"	36c
10-X-515.	Half size, Coppered Bronze Wire	⅞"	37c
10-X-516.	Full size, Coppered Bronze Wire	1⅛"	38c
10-X-517.	Half size, Coppered Bronze Wire	1⅛"	39c

No screen covered with Black Wire furnished for less than $1.05.

No screen covered with Galvanized or Aluminoid Wire furnished for less than $1.45.

No screen covered with Bronze or Copper Wire furnished for less than $2.40.

HALF SIZE SCREENS WINDOW WITH GROOVED STYLES AND LOOSE SLIDES

HOW TO ORDER WINDOW SCREENS

When ordering Full Size Screens, measure exact space that the screen is to occupy—the width between the outside casings and the height from the sill to the top or head casing. For Sliding (Half-size) Screens, measure width between blind stops (the wood strips that hold the outside sash in place) and the height will be the distance from the sill to the upper sash at the point where the glass joins the wood.

Prices given here are per square foot. Multiply width by height, using extreme measure over wood and wire both.

SCREEN WINDOW STOCK

TOP, SIDE AND CENTER RAIL

No. 10-X-595. Size, ¾x1¾ inches. Price per 100 lineal feet..... **$2.40**

The various items of screen moulding shown on this page are made of thoroughly kiln-dried stock. Soft White Pine, Fir or Cypress are the best known woods for exterior use on account of their weather defying qualities. This material is smoothly run, is absolutely clear and is made in standard sizes. All this screen material is carried in stock in random lengths, and if wanted cut to specified lengths, add 10% extra to listed prices.

This screen slide is used on half window screens and fits into the groove shown in grooved stile.

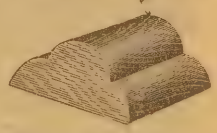
No. 10-X-599. Screen slide size, ½x13/16 in. Price per 100 lineal ft. **$1.18**

GROOVED STILE FOR HALF SCREENS

No. 10-X-597. Size ¾x1¾ inches. Price per 100 lineal feet..... **$2.40**

BOTTOM RAIL

No. 10-X-596. Size, ¾x2¾ inches. Price per 100 lineal feet..... **$3.50**



Screen Moulding for covering screen wire where nailed to edges of stile and rails.

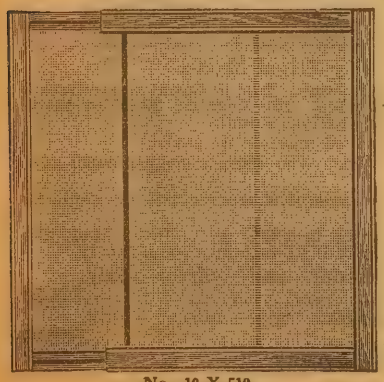
No. 10-X-598. Screen Moulding. Prices per 100 lineal feet. ⅜x13/16 inches **96c**

"FLI-PROOF" ADJUSTABLE WINDOW SCREENS

This is the most satisfactory Adjustable Window Screen made. Material and workmanship are the best and the new method of center metal bars makes this screen absolutely fly-proof. Made of Selected Hard Wood, finished in Oak. Beaded both sides. Covered with Black Wire Cloth. Can be adjusted to fit any width window between open and closed sizes given.

Our Adjustable Screens are shipped direct from our Michigan factory, packed and crated in dozen lots of the same size and sold only by the dozen at the prices named.

One dozen in two different sizes, one-half dozen each, 25c extra



No. 10-X-519

Size, Closed Inches	Size, Open Inches	Height Inches	Price Per Dozen
20	33	9	$4.40
20	33	12	5.12
20	33	15	6.03
20	33	18	6.56
20	33	22	7.92
20	33	24	8.35
22	37	24	9.27
22	37	28	10.80
20	33	30	10.80
22	37	30	11.60
28	45	30	12.98
22	37	32	12.15
22	37	36	13.32
28	45	36	15.12

Screen Door Sets

4-X-3673. Consists of one pair heavy hold back spring hinges, Japanned finish, one steel door pull, one hook and screw eye. Per set..... **22c**

Screen Door Catches

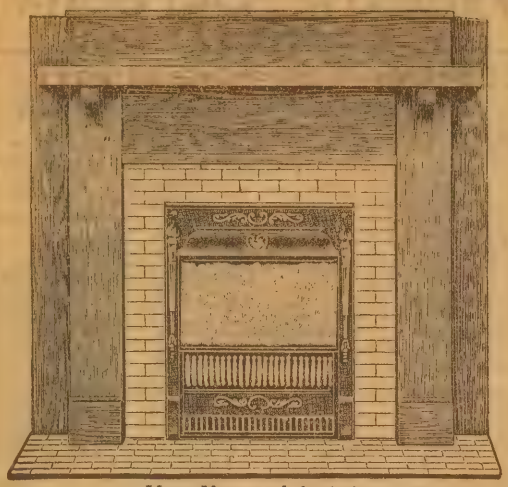
4-X-3675. Vienna bronze finish, suitable for doors ⅞ to 1⅜ inch thick, complete with screws. Price, each..... **22c**

Malleable Iron Hangers

For full size Window Screens. **4-X-2006.** Price per pair, with screws..... **35c**

For description, see Hardware Section of Catalog.

MANTLES OF VERY ATTRACTIVE DESIGNS



Very Neat and Artistic

10-X-848. Mantel, woodwork only.
Price, Oak **$13.75**
10-X-849. Mantel, woodwork only.
Price, Mahogany **$14.50**

SPECIFY OAK OR MAHOGANY

A STONE or brick mantel cannot find its proper place in a room in which it is the only material of its kind used, and it is out of harmony with the rest of the decorations. The mantel should really harmonize with its surroundings, its lines as well as its structural material, should be made as nearly as possible in accordance with the general style of the room. The importance of the wood mantel in furnishing the home cannot be over-estimated. A badly designed piece of furniture can easily be removed, but the mantel cannot be; hence the importance of your selection.

A few years ago, in some sections of the country, a sentiment gained ground that fireplaces were not needed, as most houses contained different kinds of furnaces, which supplied the want, and some people being quick to adopt new suggestions, commenced to eliminate fireplaces and chimneys from their homes. However, if anyone doubts that this was a mistake, ask any one of your neighbors who have built a house without a fire-place, and they will tell you it was the saddest mistake in the building of their home.

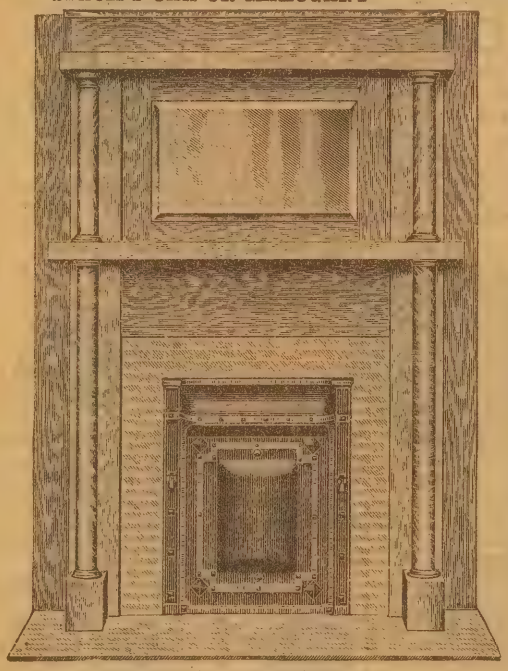
Selected Oak or Birch Mahogany, 56 in. high, 56 to 60 in. wide. Tile opening, 36x36 in. or 42x36 in. Projection, 3¾ in. Royal Gloss finish.

This pattern is somewhat similar to others shown, except the broad stiles in front, rather than the use of the column or pilaster.

Neat, attractive looking, and the price is very low. It should certainly not be missed from one of your bed rooms.

This Mantel can also be furnished with flat jambs—no profile—without additional cost.

REMEMBER: All our mantels, including the above, can be furnished in the white just as they come from the final sandpapering—no varnish or stain—so you can finish them to match your interior finished woodwork.



An Attractive Design

Selected Oak only. Three different size mirrors. 80 inches high, 54 to 60 in. wide. Tile opening, 36x36 inch. Profile, 3¾ in. Royal Gloss Finish.

We do not believe this attractive mantel can be duplicated anywhere in the country.

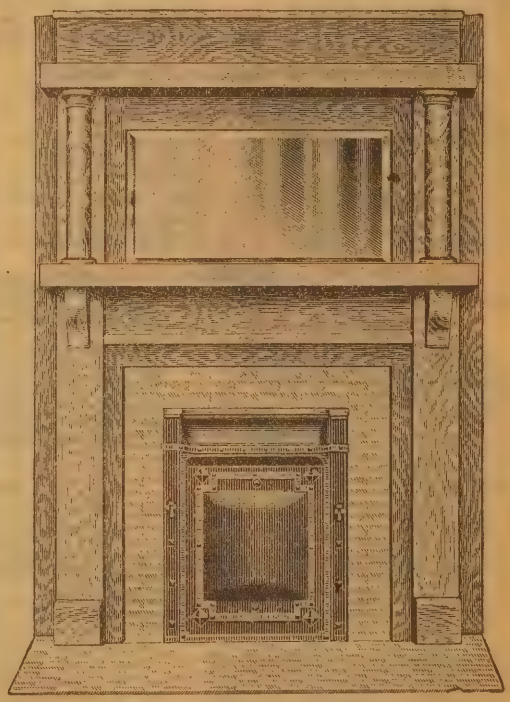
The construction and finish are the best and the proportions are perfect.

You will note the full Quartered Oak Columns and shelf fronts.

For a cottage it is a mantel that should certainly not be passed by.

10-X-839 Mantel—Woodwork and mirror only, 14x24 ..... $39.50
10-X-840 Mantel—Woodwork and mirror only, 16x28 ..... $41.75
10-X-841 Mantel—Woodwork and mirror only, 18x36 ..... $44.75

OAK ONLY



A Reasonably Priced Mantel

Selected Oak or Birch Mahogany. Two different size mirrors. 73 inches high, 54 to 60 in. wide. Tile opening, 36x36 or 42x36 in. Projection, 3¾ in. Royal Gloss Finish.

One of the largest low priced mantels we make.

Designed especially for those who want a large mantel at a small price.

Workmanship, finish, and general character, are the same as our best Mantels.

The box fronts, columns and brackets under lower shelf are all genuine quartered oak. Will fit into any room nicely.

10-X-837 Mantel—Woodwork and mirror only, 16x28 ..... $31.50
10-X-838 Mantel—Woodwork and mirror only, 18x36 ..... $35.95

OAK ONLY

A TOUCH OF REFINEMENT FOR ANY HOME

OUR designs include the different period styles. We can furnish them in the natural wood, without stain or varnish. Our stock woods are **Birch, Mahogany, Quartered Oak, Plain Oak.** Mantels are carried in stock, and ordinarily can be furnished promptly. Mission Mantels are finished in all the popular Mission colors, such as Early English, Weathered, and Fumed, and the designs harmonize with the best Mission furniture made. Mantels quoted in Oak and Mahogany are carried in stock finished in Golden Oak and regular Mahogany, Rubbed Piano Polish and so shipped unless otherwise ordered.

Mantels can also be furnished **painted three coats white,** without extra charge, so that you may have same white enameled after setting it up in your house, as it is impossible to ship white enameled mantels without damage. Extra charge and special quotation will be made for mantels wanted in other woods than those specified under each mantel, and also for different sizes.

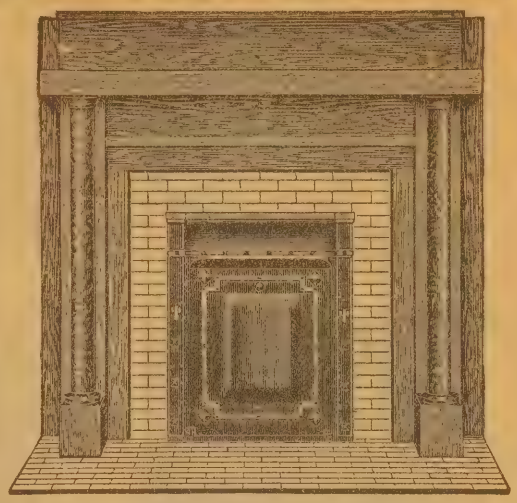
THE MANTEL AT THE RIGHT—

Selected Oak or Birch Mahogany, 57 in. high, 57 to 60 in. wide, 36x36 in. or 42x39 in. tile opening. Projection, 3¾ in. Royal Gloss finish.

One of the best of its kind made.

It is large—made in both selected Oak, with Quartered Oak columns and shelf front, and in Birch Mahogany, and finished in best Royal Gloss finish.

It is one that you will be proud of, wherever it is put. Consider it very carefully.



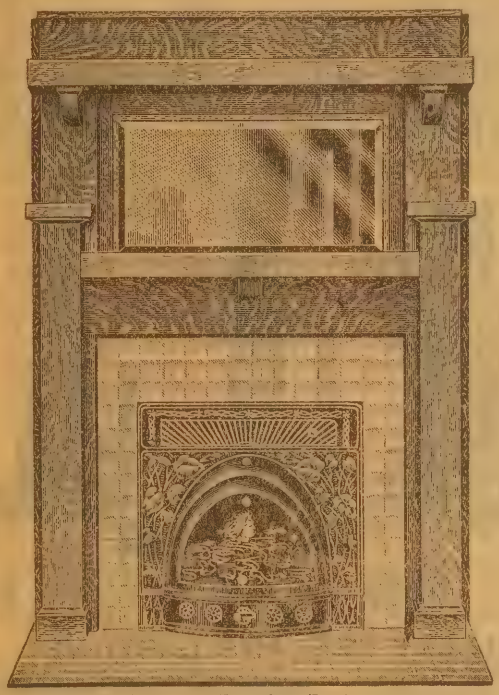
An Elegant Medium Priced Base

10-X-844. Mantel, woodwork only. Price, Oak..... **$19.75**

10-X-845. Mantel, woodwork only. Price, Mahogany..... **$20.50**

SPECIFY OAK OR MAHOGANY

Remember: All our mantels, including the above, can be furnished in the white just as they come from the final sandpapering—no varnish or stain—so you can finish them to match your interior finish woodwork.



A Very Popular Design

Quartered Oak, Mahogany. Large, 18x36 in. French bevel plate mirror. 7 ft. long. 5 ft. wide. Tile opening, 42 in. wide by 39 in. high. Profile, 3¾ in. Polished Piano Finish.

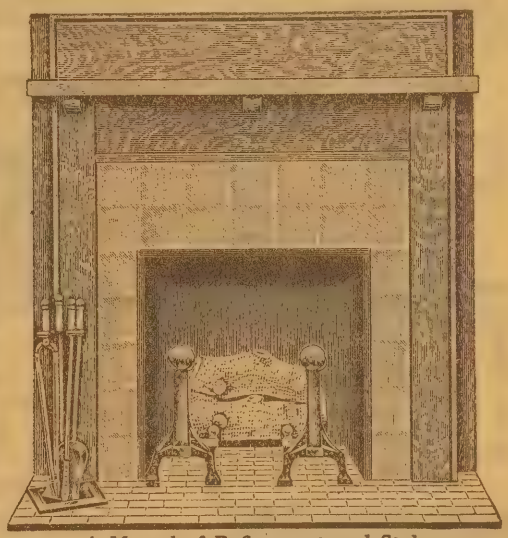
This is a design that has been unsuccessfully copied by practically every mantel manufacturer, and today it still stands supreme as our pattern. Appropriate for most any house, and equally adaptable to any room.

While of no particular class of architecture, the genuine simplicity immediately catches the eye. The rising pedestals on either side joined at the breast by the deep swelled shelf has an effect that is incomparable. The mirror running to the shelf reflects all ornaments placed thereon.

Can furnish either wood—**Quartered Oak or Mahogany.**

10-X-820 Mantel—Woodwork and mirror only.....$63.75

SPECIFY OAK OR MAHOGANY



A Mantel of Refinement and Style

Quartered Oak. Birch Mahogany. 5 ft. high. 5 ft. wide. Tile opening, 42x42 in. Profile, 3¾ in. Polished Piano Finish.

We believe you will agree that we have succeeded in getting an elegant refinement and style into a mantel of this character.

You will notice the plain, elegant lines along which this mantel was built.

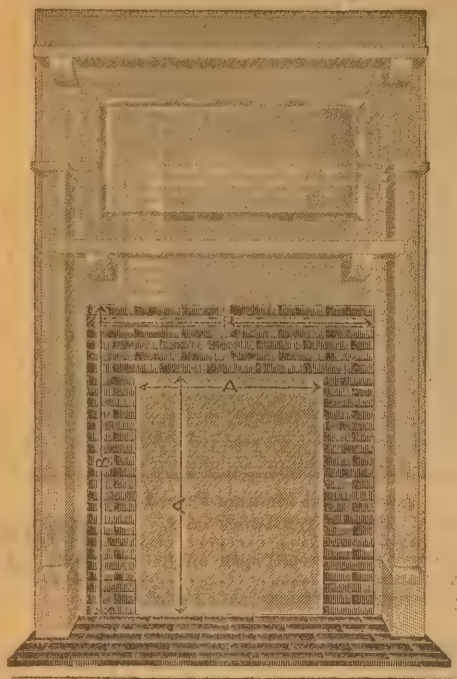
Absolutely selected figure throughout. This mantel is one that you will never be ashamed of, no matter where you use it, and if you are going to use a Base in any of your rooms you will do well to consider this one.

Remember, we can furnish this in Mahogany as well as Quartered Oak.

10-X-821 Mantel—Woodwork only.
Price, Quartered Oak.....$25.88

10-X-821½ Mantel—Woodwork only.
Price, Mahogany $29.85

GLAZED ART MANTEL AND HEARTH TILE



Glazed Tile Is Positively the Only Kind That Can Be Kept Perfectly Clean No Trouble At All to Keep Spotless and Bright

Every piece of our Enameled Art Mantel Tile is guaranteed flawless in quality and perfectly manufactured. These are the essentials that ensure permanency, and when you have your mantel faced and your hearth laid with our strong, durable vitreous Art Tile you have not only added beauty to your home, but you have also built for all time to come.

All of the most desirable colors—Ivory, Cream, Green, Brown, Delft Blue and Mottled Onyx in various shades. The glazing of our tile is an exceptionally brilliant hard enamel. The colors are literally burned in and it is impossible for the tints or shades to fade, discolor or tarnish.

Our Enameled Art Tile makes the best sanitary hearth and mantel facings and our low prices put this high grade material within the reach of the smallest purse. Low in price but not "cheap." We have not sacrificed quality for price. Quality first and the price as low as is consistent—that's our motto.

The size of each piece is 6x1½ inches. In barrel lots, special prices will be made.

How to Order

"A" to "A" shown on the opposite illustration is the "Grate Opening" measurement.

"B" to "B" is the Mantel "Tile Opening" measurement.

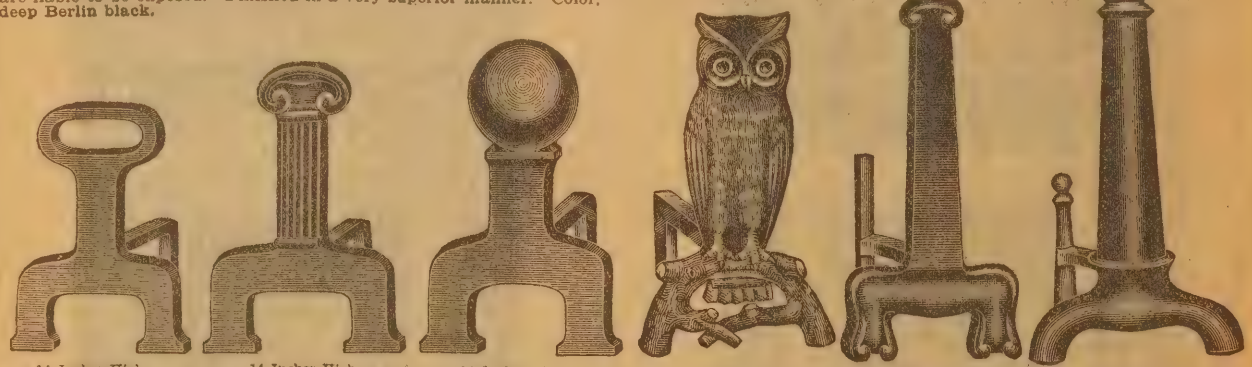
The first thing to do is to select the Mantel, then select the Grate, then see the size of the tile opening of the mantel as well as the size of the grate opening of the grate, and in ordering your tile, be sure that you allow sufficient to cover the proper opening. If Summer Front is not included in the grate and you desire it, allow the amount charged extra.

For instance, we will assume that you select Mantel No. 10-X-820, tile opening 42-39, and that you select the smallest size Mephisto Grate Outfit, No. 10-X-1354, the size which will fit into a grate opening 24½x30¼. You will thus require the largest amount of tile, as the mantel tile opening is the largest that is made and the grate opening is the smallest, leaving a large space to be filled with tile. You would, therefore, require our No. 10-X-1608 for tile opening 42x39, grate opening 24½x30¼, amounting to $11.20.

Number.	Size of Tile Opening of Mantel	Size of Grate Opening	Size of Hearth	Price	Weight
10-X-1603.....	36"x36"	30½"x30¼"	60"x18"	$9.20	58 Lbs.
10-X-1604.....	36"x36"	24½"x30¼"	60"x18"	9.78	60 Lbs.
10-X-1605.....	36"x39"	30½"x30½"	60"x18"	9.95	61 Lbs.
10-X-1606.....	36"x39"	24½"x30¼"	60"x18"	10.35	63 Lbs.
10-X-1607.....	42"x39"	30½"x30¼"	60"x18"	10.45	66 Lbs.
10-X-1608.....	42"x39"	24½"x30¼"	60"x18"	11.20	73 Lbs.

BERLIN BLACK ANDIRONS

These Andirons represent the very highest type of the designer's art and the workman's skill. A specially prepared metal composition is used in manufacture, capable of withstanding the intense heat to which andirons are liable to be exposed. Finished in a very superior manner. Color, deep Berlin black.



14 Inches High
10-X-215. Per pair..... **$2.93**
Shipping wt., 25 lbs.

14 Inches High
10-X-1241. Per pair..... **$3.30**
Shipping wt., 30 lbs.

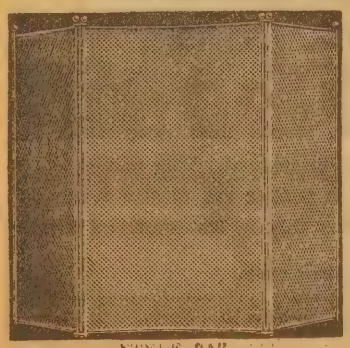
14 Inches High
10-X-216. Per pair..... **$3.40**
Shipping wt., 25 lbs.

15 Inches High
10-X-1324. Per pair..... **$5.25**
Shipping wt., 25 lbs.

22 Inches High
10-X-1240. Per pair..... **$6.67**
Shipping wt., 50 lbs.

24 Inches High
10-X-1243. Per pair..... **$8.95**
Shipping wt., 65 lbs.

FOLDING FIREPLACE SCREEN—ENTIRELY NEW AND LASTING



STYLE "A"

Guaranteed against warping or getting out of shape. The fabric is of double mesh, fine wire. Our new hinge connection not only allows you to make up any size screen you may desire, but by attaching or detaching the panels the screens will stand straight and be rigid on the floor in any position. Our black screens are copper plated first, then oxidized black, giving them a dull, soft, smooth, black finish that will never wear off.

Style	No.	Width of Entire Screen	Hght.	Width of Folds	Finish	Price of Entire Screen	Extra Folds
"A"	10-X-1421	42"	26"	12"&18"	Dull Black	$7.75	$2.75
"A"	10-X-1422	42"	30"	12"&18"	Dull Black	8.95	3.10
"B"	10-X-1423	48"	26"	12"	Dull Black Brass Knobs	9.52	2.60
"B"	10-X-1424	48"	30"	12"	Dull Black Brass Knobs	10.25	2.90
"B"	10-X-1425	48"	26"	12"	All Solid Brass	19.50	4.95
"B"	10-X-1426	48"	30"	12"	All Solid Brass	21.40	5.40

Shipping weight 15 to 20 lbs. If handles are wanted on Nos. 1421-22-23 or 24 add 25c per handle extra. Shipped direct to you from northern Michigan factory.

STYLE "B"

DEPENDABLE FIREPLACE OUTFIT

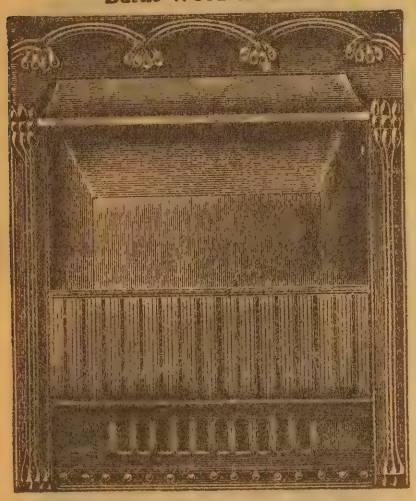
Quality the Very Best Throughout

Do not make a mistake and buy a grate without seeing how it is built, the damper, the ash dump and above all the **Fire Clay Linings.** A careful comparison of our full line of **Grates** and fireplace **fixtures is invited.** You can absolutely depend upon the **price** as being the **lowest, material** of the **best** according to its kind. All of our **grate outfits** are new designs, modern in style, matching perfectly with our line of modern mantels, containing the latest improved ventilating and regulating devices. They are outfits very much desired, and, therefore are in great demand. We will furnish any of our outfits plated in either **oxidized copper, oxidized brass or brush brass** and all take the same price.

Neither the **fire brick or cement** are included in any of our quotations nor do we furnish same, for they can generally be purchased to a better advantage locally on account of heavy freight charges.

Please read our descriptions and specifications **carefully,** to prevent error in ordering. We **guarantee** that all of our **fixtures and grates** are manufactured in the very best manner, and also guarantee **safe delivery.**

$7.50 Buys Our Combination "MEPHISTO" GRATE
Burns Wood or Coal



Our "Mephisto" COMBINATION GRATE is excellent for burning wood and soft coal. The basket or fire pot is made of heavy cast iron and very serviceable. **The Frame** has projecting canopy at top.

This grate is intended to be used where the back and sides are built of brick.

The Summer Front is of ornamental steel, cannot break; very much superior to the old fashion cast iron kind.

MEPHISTO GRATE OUTFIT

10-X-1354. Mephisto Grate 24½ in. wide x **30½ in.** high, with fire pot **20 in.** wide x **9 in.** deep; Berlin black finish. Price..... **$7.50**

Plated, $1.60 extra.
Shipping weight, **70 lbs.**

EXTRA: Summer Front add **$1.90**

LARGER SIZE MEPHISTO GRATE

10-X-1354½. Mephisto Grate outfit with a frame **30½ in.** x **30¼ in.** with a fire pot **24 in.** wide and **9 in.** deep. Price.. **$8.95**

Extras, same as above.
Shipping weight, **80 lbs.**

$16.45 Buys this Beautiful "AJAX" GRATE
Burns Wood or Coal

Our "Ajax' DOUBLE DAMPER Set Grate invariably gives perfect satisfaction. It is a **beautiful** ornament and the material is the very best. **This Grate has a heavy fire clay lining on back and sides, in one piece,** ready to put in place and does not require the services of a skilled workman to set. Grates with Fire Clay linings on back only soon burn out at the sides and become worthless.

To those desiring an inexpensive serviceable and attractive grate or fire place, fitted and mounted ready for use, we highly recommend our **Ajax** as here described and illustrated. This grate is also equipped with a **Shaker** to shake down ashes and **Dumping Bottom** to dump them.

The arrangement of the double dampers give perfect control to the draft and fire.

"Ajax" grates require little labor or expense to set. Just push it into the fire place and it is ready to start the fire.

AJAX GRATE OUTFIT

10-X-1405. Ajax Grate, frame, **24½ in.** wide x **30¼ in.** high and with a basket **20 in.** wide x **9 in.** deep. Berlin Black Finish. **Summer Front included. Price**..... **$16.45**

Plated, $1.60 extra.
Furnished in the above size only. Shipping weight, **160 lbs.**

$21.75 The Very Best Made OUR "METEOR"
Burns Wood or Coal

In presenting our **"Meteor" DOUBLE DAMPER set grate** we show a grate that has damper slide in ash screen. Both can be closed completely to throw the fire and prevent dust when shaking.

The **Double dampers** give **complete control of the fire** and perfect ventilation at all times. Very simple in its construction—all in one piece and ready for putting in place. Does not require the service of a skilled workman.

This Grate has large fire pot with full set of **Clay Liners** which may be removed and replaced from the front without disturbing the grate or setting.

METEOR GRATE OUTFIT

10-X-1420. Meteor Grate, 24½ in. wide x **30¼ in.** high, with a **20-in.** plated basket, with double damper attachment and fire clay brick lining, and **including Summer Front** in heavy cast iron Berlin black finish. Price.... **$21.75**

Plated, $1.60 extra. Shipping weight, **160 lbs.**

LARGER SIZE METEOR GRATE

We can furnish the Meteor Grate with frame **30½** x **30¼** with **24 in.** wide fire pot **9 in.** deep.

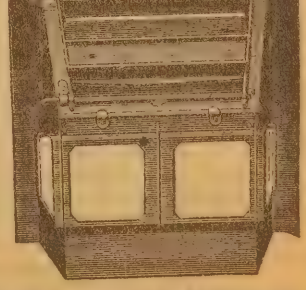
10-X-1420½. Berlin black finish. Price..... **$26.55**

Plated $1.60 extra Shipping weight, **200 lbs.**

SECTIONAL VIEW

Illustration shows arrangement of damper, fire tile and general construction of our Meteor outfit.

Attention is called to the rear view showing the arrangement of the two dampers and the heavy fire clay linings. Shaking and dumping attachment is furnished with each grate without extra cost.



Ash Pit Doors.

Special Size Hinges. Extra Strong Catch.

No.	SIZES	Price
10-X-1325.	12 x 16 In.	$2.95
10-X-1326.	16 x 16 In.	3.80

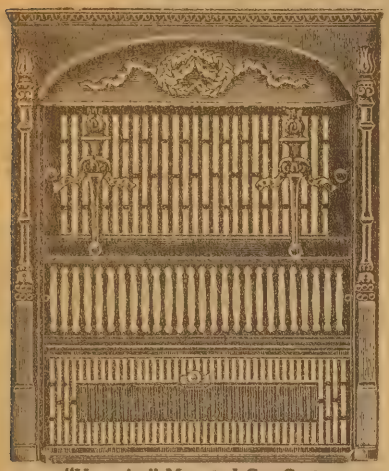
SECTIONAL VIEW OF AJAX OUTFIT

Illustration shows the side view of the damper attachment and the full fire clay brick lining of fire pot.

Please note the arrangement of the two dampers and the heavy fire clay sack lining. **These are important features.**

Gas Grates—Logs—Fireplace Fixtures

Vesuvius Mounted Gas Grate



"Vesuvius" Mounted Gas Grate.

$11.58

For Complete Outfit.

Complete mounted Gas Grate and Summer Front; 24½ inches wide by 30¼ inches high. It is fitted with our latest improved **5-row** steel burners, spreading one continuous sheet of fire over the asbestos back, and radiating at least **one-third more heat** than can be produced by any other gas grate with same amount of gas. It has projecting canopy top, and damper for regulating the **ventilation;** also gas valve, air mixer and copper reflectors. **Grate is all put together** complete, ready for use. Shipping weight, **75 lbs.**

10-X-1314. Vesuvius Mounted Gas Grate Outfit, 24½x30¼ inches, as described above. **Berlin Black Finish.** Price complete.. **$11.58**

Copper Plated $1.20 extra.

10-X-1316. Same Outfit as above, except it is 30½ inches wide by 30¼ inches high. **Berlin Black Finish.** Price complete.. **$13.95**

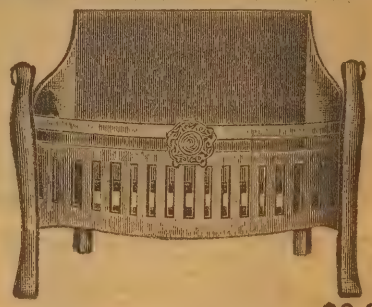
Copper Plated $1.20 extra.

Note: The Vesuvius Gas Grate is the cheapest, cleanest and quickest fire ever produced. **Leaves no dust or ashes.** Try one and be convinced.

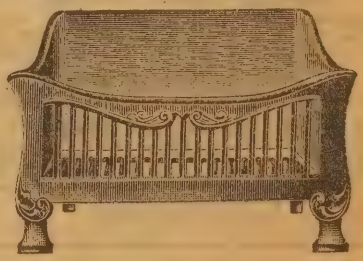
Portable Basket Grates

Made with dumping bottom, triple plated, of exceptionally good quality. Berlin black finish. Shipping weight of all Basket Grates about 70 lbs.

10-X-1311. 20 inches wide. Price..... **$8.55**
10-X-1321. 22 inches wide. Price..... $ 9.30
10-X-1313. 24 inches wide. Price..... 10.40



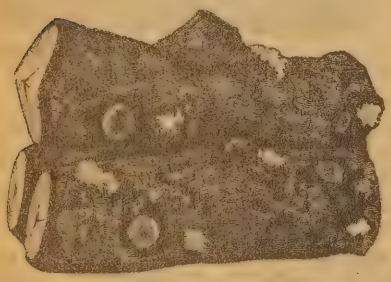
10-X-1305. 18 inches wide. Price..... **$8.32**
10-X-1306. 20 inches wide. Price..... $ 8.45
10-X-1307. 22 inches wide. Price..... 9.30
10-X-1308. 24 inches wide. Price..... 10.40
10-X-1309. 27½ inches wide. Price..... 11.45



10-X-1317. 18 inches wide. Price..... **$8.45**
10-X-1318. 20 inches wide. Price..... $ 8.58
10-X-1315. 22 inches wide. Price..... 9.50
10-X-1319. 24 inches wide. Price..... 10.65
10-X-1320. 27½ inches wide. Price..... 11.60

Superior Terra Cotta Three-Stick Gas Log

$4.95



GUARANTEE

Do not confuse our Gas Logs with the cheap gas logs generally offered.
We GUARANTEE our Logs against cracking, exploding, flashing back or defective workmanship.

Our Triple Gas Logs show a beautiful reproduction of natural wood. They are made of best heavy terra cotta, highly burned, and with reasonable care will **last a life time.** Price includes adjustable spud and mixer. Everything ready to attach to stop cock at end of pipe.

These Gas Logs may be rested on regular Andirons, or Gas Log Stands as illustrated and priced in next column.

No.	Size	Price
10-X-1491.	12-inch Three-Stick Log	$ 4.95
10-X-1492.	14 " " " "	5.72
10-X-1493.	16 " " " "	6.65
10-X-1494.	18 " " " "	7.10
10-X-1495.	20 " " " "	8.25
10-X-1496.	24 " " " "	9.10
10-X-1497.	28 " " " "	13.25
10-X-1498.	32 " " " "	15.95
10-X-1499.	36 " " " "	19.98

NOTE: 18 inch only carried in stock—as this is the average size ordered—other sizes shipped direct from our factory in Ohio.

Gas Log Stands

Wrought Iron, Hand Made solid and substantial Used to rest gas logs on. Legs can be cut off if too long. 14 inch is average size and will do for all logs under 24 inches long. **Painted Berlin Black**

No.	Length	Width, Front	to Back	Height	Price
10-X-1487.	12 in.	7 in.		5½ in.	$0.62
10-X-1488.	14 in.	7 in.		5½ in.	.68
10-X-1489.	18 in.	8 in.		5½ in.	.78
10-X-1490.	20 in.	8 in.		5¼ in.	.84

Ash Pit Trap

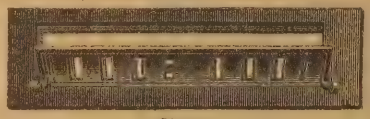
Strong, Automatic. Will Last a Life Time.

10-X-1333. 7x 9 inches. Price..... $0.88
10-X-1334. 9x11 inches. Price..... 1.18

Chimney Flue Dampers.

With or without Ratchet Control.

Ratchet Control is a device consisting of a simple bent flat piece of iron with saw teeth and ring in end, so that damper opening may be regulated with end of poker.



Sizes:

No.	Outside	Size of Opening	Price
10-X-1327.	24x 7 in.	18x5 in.	$1.98
10-X-1328.	30x 9 in.	24x6 in.	2.90
10-X-1329.	36x 9 in.	30x6 in.	4.05
10-X-1330.	42x 9 in.	34x6 in.	5.10
10-X-1331.	48x13 in.	38x9 in.	6.65

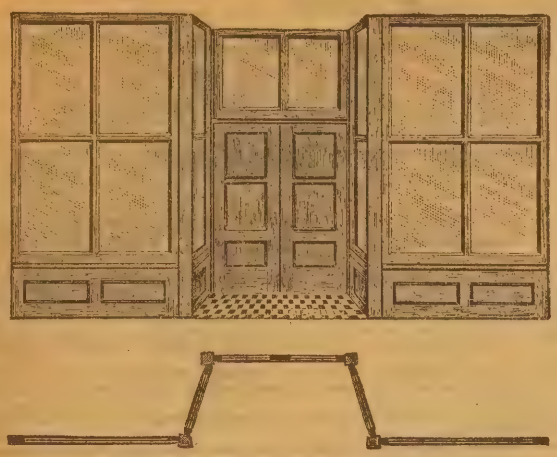
Wire Spark Guards

10 - X - 1502. Coppered fine wire lining, **24 inches** wide, **30 inches** long. Price **$3.35**

10 - X - 1503. Coppered fine wire lining, **30 inches** wide, **30 inches** long. Price **$4.10**

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Bargains in Wood Store Fronts



"Economy" Store Front

This illustration shows our Economy Store Front which we furnish with recess sash exactly like illustration or with a straight front without the recess sash. **Separate prices quoted as per table below.** Prices include all sash and transoms fitted with stops, one pair of doors, also all posts, transom bars and sills furnished in the knock-down, all machined out and ready to set up, and material for panels. We furnish all the glass in clear double strength "A" quality, which is shipped separately securely packed and boxed to insure against breakage in transit.

Prices of "Economy" Store Front

SIZES Width Feet	SIZES Height Feet	OPENING SIZES OF DOORS IN PAIRS Width Ft. In.	OPENING SIZES OF DOORS IN PAIRS Height Ft. In.	10-X-563 With Recess as Shown D. S. Glass	10-X-564 Without Recess D. S. Glass
20	10	5 — 0	7 — 0	$170.74	$138.52
22	10	5 — 0	7 — 0	179.46	149.14
24	10	6 — 0	7 — 0	184.50	159.30
20	11	5 — 0	7 — 0	187.02	152.64
22	11	5 — 0	7 — 0	204.02	178.92
24	11	6 — 0	7 — 0	224.74	195.48
20	12	5 — 0	8 — 0	207.72	191.34
22	12	5 — 0	8 — 0	229.78	197.64
24	12	6 — 0	8 — 0	243.36	201.06

We furnish with each order for our Store Fronts a complete set of Architects' Blue Print Plans, detail sheets and list specifying what each piece is for and where it is to be used, which make the work of installation easy and rapid.

Plate Glass Store Front

This is a popular design of modern store front of wood construction as illustrated in the lower corner. Priced in two different ways: First, exactly as shown in picture, all glass polished plate. Prices in the second column in price table below cover plate glass only for the two large sash. All other glass will be furnished in clear double strength "A" quality glass and the two recess sash as well as the transom sash will be divided in two lights instead of one light. All glass will be shipped separately securely packed and boxed to prevent breakage in transit.

Prices for this front include all sash and transoms fitted with stops, one pair of doors, also all posts, transom bars and sills furnished in knock-down, all machined out and ready to set up, and material for panels.

Prices of Plate Glass Store Front

SIZES Width Feet	SIZES Height Feet	OPENING SIZES OF DOORS IN PAIRS Width Ft. In.	OPENING SIZES OF DOORS IN PAIRS Height Ft. In.	10-X-565 As Shown all Glass Plate	10-X-566 2 Large Sash Plate Balance D. S.
20	10	5 — 0	7 — 0	$104.45	$263.16
22	10	5 — 0	7 — 0	432.35	292.90
24	10	6 — 0	7 — 0	464.97	301.23
20	11	5 — 0	8 — 0	449.55	303.25
22	11	5 — 0	8 — 0	484.10	330.48
24	11	6 — 0	8 — 0	521.90	350.02
20	12	5 — 0	8 — 0	497.15	315.19
22	12	5 — 0	8 — 0	536.75	335.04
24	12	6 — 0	8 — 0	576.57	369.06

We can furnish anything and everything in Store Fronts. Send your details for our prices.

Store Doors Built for Hard Usage

Our store doors are made from thoroughly seasoned "A" grade lumber and well manufactured. Made 1¾ inch thick to withstand hard usage. The "Premium" door is divided in 2 lights to each door, matching 4 light Store Sash and has 1 panel below the glass. Used in the Economy store front as shown above. The "Merchant" door is more suitable for higher grade work, contains one long glass and is priced in double strength and also polished plate glass.

"Merchant" Door, 10-X-223-224

Prices given below are for single doors only

Prices of "Merchant" Door

10-X-223 SIZES 1¾ In. Thick	10-X-223 Glazed Plain D. S. A.	10-X-224 Glazed Plain Plate	10-X-224 Size of Glass
2-6 x 7-0	$10.08	$24.74	20 x 60
2-6 x 7-6	11.59	26.92	20 x 66
2-6 x 8-0	11.99	29.13	20 x 72
2-8 x 7-0	11.00	26.59	22 x 60
2-8 x 7-6	11.92	29.13	22 x 66
2-8 x 8-0	12.45	31.34	22 x 72
3-0 x 7-0	11.88	30.78	26 x 60
3-0 x 7-6	13.65	33.54	26 x 66
3-0 x 8-0	14.83	36.86	26 x 72

If "Merchant" doors are glazed with beveled polished plate glass as shown, instead of plain plate, add $1.55 per door.

Prices on "Premium" Door 10-X-52

SIZES 1¾ In. Thick Ft. In. Ft. In.	Glazed, Clear D. S. A.	Size of Glass
2-6 x 7-0	$ 9.19	20 x 24
2-6 x 7-6	10.10	20 x 27
2-6 x 8-0	10.63	20 x 30
2-8 x 7-0	9.58	22 x 24
2-8 x 7-6	10.06	22 x 27
2-8 x 8-0	10.20	22 x 30
3-0 x 7-0	10.56	26 x 24
3-0 x 7-6	11.78	26 x 27
3-0 x 8-0	12.50	30 x 26

"Premium" Door 10-X-52

Flooring and Finish Lumber

IMMEDIATE SHIPMENT FROM OUR CHICAGO STOCKS

NOTE: Owing to constant advances in the market prices on lumber we deemed it best to omit prices and ask our customers to kindly write for same.

OUR line of Flooring and Finish cannot be beat for quality or workmanship. No use to look elsewhere for something different, or a lower price, or a better grade. Shipped from CHICAGO within the low freight rate zone. See below how to order flooring.

Yellow Pine Flooring

Price per 100 ft. B. M. Weight given per 100 ft. Mixed length 8 to 20 ft. Lengths not sorted.

Number	Grain	Rough Size	Finished Size	Grade	Price	Weight
22-X-5210	Flat Y. P.	1x4"	13/16x3¼"	Clear	Write for Prices	220 lbs.
22-X-5212	¼ Sawed Y. P.	1x4"	13/16x3¼"	Clear		220 lbs.
22-X-5213	Flat Y. P.	1x6"	13/16x5¼"	No. 2		230 lbs.
22-X-5214	Flat Y. P.	1x6"	13/16x5¼"	No. 1		230 lbs.
22-X-5215	Flat Y. P.	1x6"	13/16x5¼"	Clear		230 lbs.

"¼ Sawed" and "Edge Grain" or "Comb Grain" mean the same. 6 in. "Clear," furnished clear of knots, only may have slight stain.

Fir Porch and House Flooring

Price per 100 ft. B. M. Weight 220 lbs. per 100 ft.

Number	Size	Grade and Kind	Lengths	Price
22-X-5355	1x4"	Select Flat Grain	6, 7, 8 or 9 ft. lengths	Write for Prices
22-X-5357	1x4"	Select Edge Grain	6, 7, 8 or 9 ft. lengths	
22-X-5358	1x4"	Clear Flat Grain	6, 7, 8 or 9 ft. lengths	
22-X-5360	1x4"	Clear Edge Grain	6, 7, 8 or 9 ft. lengths	
22-X-5363	1x4"	Select Flat Grain	Mixed Lengths 10 to 20 ft.	
22-X-5366	1x4"	Select Edge Grain	Mixed Lengths 10 to 20 ft.	
22-X-2268	1x4"	Clear Flat Grain	Mixed Lengths 10 to 20 ft.	
22-X-5369	1x4"	Clear Edge Grain	Mixed Lengths 10 to 20 ft.	
22-X-5372	1x6"	No. 2 Common	Mixed Lengths	
22-X-5373	1x6"	No. 1 Common	Mixed Lengths	
22-X-5374	1x6"	Clear Flat Grain	Mixed Lengths	

Order by number. **State size, grade and length, and if Flat or Edge Grain.**

We recommend fir especially for the purpose of **porch floors.** It wears better because it is not as soft as Soft Pine and some other woods now being endorsed for Porch floors. As to its durability, don't you worry that this **close knit fibrous Fir** of the Western Slope will decay in a hurry. Do you suppose we would go to the trouble of hauling lumber all the way across the **Cascades** and **Rocky Mountain Ranges** if it was not a durable wood. **Fir** has all other woods backed off the boards for the purpose of porch floors—bar none.

EXPLANATION OF GRADES

ON FLOORING

Clear Grade:—Our Clear Grade means free from knots without any reservation—must work full count in clear stock without any waste whatever.

Select Grade:—Our Select Grade is the next grade below clear; may contain slight imperfections, a little pitch streak, small pin knot and the small sound red knot, provided balance of piece is clear. This grade is good enough for any house where an absolutely clear floor is not essential.

No. 1 Grade:—Our No. 1 Grade allows for a few knots, but they must be sound and tight. Slight checks, a defect that will do no harm and an occasional piece off color, on account of blue sap, but on the whole it will make a good, sound floor and can be laid without waste if these defects are not objectionable.

No. 2 Grade:—Our No. 2 Grade allows for a larger percentage of knots, as well as imperfections in manufacture and defects other than No. 1; may have an occasional small knot hole when balance of piece is good. This stock is plenty good enough to be used for tenement houses or where the floor is going to be covered with rugs.

SOFT FIR FINISH

Fairminded, farsighted folk, who are familiar with Fir k-n-o-w that this fine, choice lumber, grown in the Pacific Coast States, has taken great forward strides in the last few years, being used more and more for all kinds of building purposes. Suitable for all around interior and exterior work. A great favorite for finishing boards.

Many woods are being used and pushed for outside finish, but **none come nearer than Fir** to meet the case when both economy and utility are considered.

All finishing furnished in regular lengths, dressed to standard widths and thicknesses.

FIR FINISHING LUMBER

Mixed lengths 8 to 20 ft. not sorted out as to any particular length. Price covers 100 ft. (lumber feet or board measure). Weighs 250 lbs. per 100 ft.

Number	Grade	Thickness	4 inch wide	6 inch wide	8 inch wide	10 inch wide	12 inch wide
22-X-5500	Select Fir	1"	Write for Prices				
22-X-5503	Clear Fir	1"					
22-X-5505	Clear Fir	1¼"					
22-X-5508	Clear Fir	2"					

For specified lengths (all one certain length) add 50c per 100 ft.

Short Leaf Southern Yellow Pine Finish

Price per 100 ft. Board Measure. Weight per 100 ft. 260 lbs.

Number	Grade	Thickness	4 inch wide	6 inch wide	8 inch wide	10 inch wide	12 inch wide
22-X-5527	Clear	1"	Write for Prices				
22-X-5528	Select	1"					
22-X-5529	Clear	1¼"					
22-X-5530	Select	1¼"					

For specified lengths (all one certain length) add 50c per 100 ft.

Red Oak Finish

Price per 100 ft. Weight 300 lbs. per 100 ft. Furnished mixed lengths up to 16 ft.

Number	Thickness	Width	22-X-5550 Red Oak Clear
22-X-1942	1 inch	4"-6"-8"	Write for prices
22-X-1943	1 inch	10" and 12"	
22-X-1944	1¼ inch	4" to 12"	

EXPLANATION OF FINISHING GRADES

Grades:—Finishing Lumber grades cover a great many technical points, depending upon the character of the wood. Briefly described—one face or side of **Clear grade** must be suitable for natural or hard oil finish, and must be free from knots. Our **Select Grade** is highly recommended for economy; must be free from knots, except possibly one or two small sound pin knots (not larger than a pencil) and may contain slight blue stain, etc. In other words, Select grade is not just good enough to go into our Clear.

Select grade of Fir is especially recommended for **outside work,** but not for interior finish. Use the clear for that.

HOW TO ORDER FLOORING

Flooring is figured on the basis of the **ripping width** of the lumber from which it is machined. For instance, 4-inch flooring is made from a 4-inch strip and sold as such, but when machined finishes up 3¼ inches face only, so this waste of 3/4 inch in working must be added to the quantity of space you want to cover.

Table shows how much 100 feet will cover, also what percentage to add to space you want to cover, and how much is lost in machining.

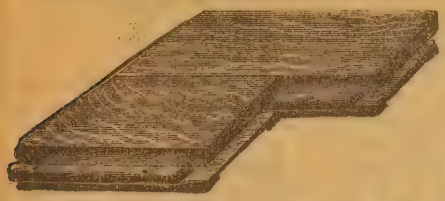
Ripping Size	Finished Size	100 ft. will Cover	Add for waste in working tongue and groove
1x3"	13/16x2¼"	75 ft. of space	33 1/3 per cent, or one-third
1x4"	13/16x3¼"	80 ft. of space	25 per cent, or one-fourth.
1x6"	13/16x5¼"	84 ft. of space	20 per cent, or one-fifth.

Wallboard? See the Big Snaps in This Book

Hardwood Flooring, Lath and Shingles

IMMEDIATE SHIPMENTS FROM OUR CHICAGO STOCKS

Smooth Hardwood Flooring



Cut shows our high grade, ⅞-inch flooring. End matched and bored for blind nailing.

Hardwood Floors Are Healthful and Economical
A Permanent Sanitary Improvement

Hardwood floors are more economical than the average home builder realizes, are easily kept **smooth and clean.**

As all our flooring is run with **matched ends,** the question of laying a hardwood floor is a **very simple matter.**

The **greatest feature** of the ⅜ inch flooring is **its adaptability** and usefulness for covering old floors, doing away with the **worn** and yielding **soft wood floors** and musty carpets. The result is a strictly **"hygienic"** floor, much more attractive because finished in the natural wood.

It is a permanent **sanitary improvement,** besides adding greatly to your renting value.

Hardwood Flooring—Its Varied Use

The Clear grades are suitable for any residence, for there are no higher grades of flooring made. For residences the Clear grades of Maple flooring are usually ordered for kitchen, hall and bathroom. Oak will be more suitable for the dining room, living room, parlor, reception room, etc., and Yellow Pine could be used for the bedrooms, a very economical combination.

Select Maple flooring is mainly used for public halls, stores, hotel chambers, and wherever a good but not absolutely **perfectly clear floor** is wanted.

Superior Manufacture

Hardwood Flooring is manufactured from superior kiln dried stock, **scientifically treated** and is as near perfect as modern machinery can make it, smoothly run, tongued and grooved on **end edges** as well as **side** edges and steel polished, which gives it the smoothest finish possible. ⅞ inch flooring is **hollow backed** and bored for secret nailing. All grades furnished in **standard** lengths and securely bundled.

EXPLANATION OF GRADES

CLEAR grade means free from knots and other defects.

Select Grade—Defects in this grade flooring are mainly of a **technical** character with an occasional very small knot in the ⅞ inch stock. There are no knots in ⅜ in. thickness, imperfection is in **manufacture,** sap and color.

Thick Hardwood Flooring

Guaranteed perfect in manufacture, correct grades perfectly side and end matched, tongued and grooved.

Store your flooring in a dry place if you don't expect to use it right away.

End Matched and Bored

Price per **100** feet Board Measure. Length **not sorted**

Number	Wood	Rough Size	Finished Size	Grade	Price	Weight
22-X-5278	Maple	1x3"	13/16x2¼"	Clear	Write for Prices	210 lbs.
22-X-5284	Maple	1x3"	13/16x2¼"	Select		210 lbs.
22-X-5290	Red Oak	1x3"	13/16x2¼"	Clear		250 lbs.
22-X-5294	Red Oak	1x3"	13/16x2¼"	Select		250 lbs.
22-X-5300	Red Oak ¼-Sawed	1x3"	13/16x2¼"	Clear		250 lbs.

How to Order Thick Flooring:

SEE PREVIOUS FLOORING PAGE

Thin Hardwood Flooring End Matched

Price per **100 lineal feet. Standard mixed length**

Net Finisned Size	22-X-5311 Select Maple	22-X-5314 Clear Maple	22-X-5316 Select Red Oak	22-X-5320 Clear Red Oak	Weight per 100 Lin. Ft.
⅜x2"	Write for prices				20 lbs.

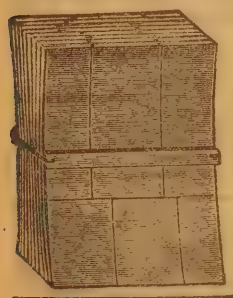
How to Order Thin Flooring:

Get the square feet space of your floor, which if your room is 10x12 figures 120 square feet. If covered with ⅜"x2", multiply by 6, result 720 lineal feet.

Question:—What is the price of 10 ft. x 12 ft. room covered with ⅜" x 2" Select Maple Flooring?

Answer:—720 lineal feet at $2.00 per 100 lineal feet is $14.40.

RED CEDAR SHINGLES



Prices on Shingles subject to change on account of market fluctuations. Write for delivered prices.	Price Per 1000 of 4 Bundles	Weight Per 1000 of 4 Bundles	Special Information
22-X-5410. Extra Star A Star Clear **16 inch, 6 to 2** butts.	Write for Prices	160 lbs.	The best quality **6 to 2** shingles made; more sold than any other brand on the market.
22-X-5415. Extra 16 in. Clear, **5 to 2** butts, Highest grade made.	Write for Prices	180 lbs.	All Clear. All 16 in. long. No defects. A high grade shingle throughout.
22-X-5425. Fancy Butt Dimension Shingles. Clear 16 inches long.	Write for Prices	175 lbs.	All uniform 5-inch widths.

***NOTE—At the present unusually high price of wooden shingles we recommend the purchase of Harris Guaranteed "Certified" Individual Slate Coated Shingles, 22-X-5426, at $8.50 per square.**

These shingles are manufactured and graded strictly according to official standard as specified by the manufacturer. Our guarantee is back of every bundle. Do not ask us to send sample pieces of shingles, as the grades cannot be correctly judged from a few pieces. If the grades are not clear to you, we will ship you One Thousand Shingles (4 bunches) upon receipt of price. These four bunches may be all one kind or different kinds but if more than one kind are ordered in a sample lot of one thousand, we will charge on the basis of the highest priced kind in the lot on account of the extra handling. 1,000 shingles will cover about 110 square feet laid 4½ inches to the weather, and about 139 square feet laid 5 inches to the weather. Allow 6 per cent for waste.

PLASTERING LATH

Always in stock in **32 inch** lengths. Full thickness and width. Correct length. Our **32** inch Soft Pine Lath are usually **far above the grade of No. 1,** strictly first class.

LOW PRICES per 1,000 pieces.

22-X-5450. 32 inch Lath, Soft pine, 325 lbs. **Write for prices**

22-X-5465. 48 inch Lath, No. 1 Short Leaf Southern Pine, 550 lbs.

22-X-5455. 48 inch Lath, No. 2 Short Leaf Southern Pine, weight, 550 lbs. **Write for prices**

Byrkit's Patent Sheathing Lath

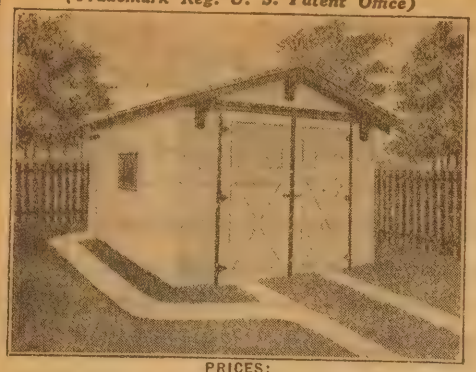
Sold in random lengths only—**4 to 16 ft.** No specified quantity of any certain lengths supplied. **Tongued and grooved or square edged** as in stock.

22-X-5475. Run from 1x4 in. strips. Per 1,000 feet.....**Write for prices**

22-X-5480. Run from 1x6 in. strips. Per 1,000 feet.....**Write for prices**

"PRESTO-UP"

(Trademark Reg. U. S. Patent Office)



PRICES:

No.	Size Inside	Price
38-X-1—	9x12 ft. . .	Write for Prices
38-X-2—	9x14 ft.	
38-X-3—	9x16 ft.	
38-X-4—	10x14 ft.	
38-X-5—	10x16 ft.	

No.	Size Inside	Price
38-X- 6—	12x12 ft. . .	Write for Prices
38-X- 7—	12x14 ft. . . .	
38-X- 8—	12x16 ft. . . .	
38-X- 9—	12x18 ft. . . .	
38-X-10—	12x20 ft. . .	

MANY OTHER SIZES AND STYLES

BOLT-TOGETHER BUILDINGS

Sectional—Portable—Permanent

(PRESTO-UP SYSTEM—Patented April 2, '18-Sept. 3, '18; Other Patents Pending)

The U. S. GOVERNMENT has purchased both Houses and Garages built under this wonderful Presto-Up System for use by the War, Radio and Aero Dept. as well as large Pittsburgh Steel Co. and other industrial plants, so they surely ought to be good enough for you.

A new and wonderful invention—guaranteed from foundation to roof—wind and weather proof. These Presto-Up built Sectional and Portable or Permanent Buildings are the most wonderful buildings of their kind made today. They are built under the patented Presto-Up System. Just as strong or stronger than a permanently built building—as handsome and satisfactory in every way, with the many added advantages of an easily handled and perfectly designed building. Invisible joints. Does not look like a sectional building. Can be erected by any one within two or three hours. Taken down and put up as often as you like without damage. Guaranteed roof and roofing. Guaranteed non-sagging doors. All exposed lumber Oregon Fir, that will last as long in the weather as any wood in use today. Painted one heavy coat, body grey, trim white. **Order yours today, or send for our Presto-Up Catalog No. 38-180. Delivered price on application.**

Quick Shipments Direct from Chicago

SAVED $75.00

Chicago.

Harris Bros. Co.

Enclosed please find snapshots of my "PRESTO UP" Garage that I bought one year ago. It is just as good as the day I bought it, and it has saved me at least $75.00 and is surely an advertisement for your garages.

(Signed) C. B. SUTTON.

"EVERYTHING FITTED TO A 'T'"

——, Illinois.

Harris Bros. & Co.

Dear Sirs: Received garage a few days ago. Myself and another man commenced the erection of this building at 1:30 P. M. and at 5:30 P. M. of the same afternoon everything was completed with the machine resting inside.

Everything fitted to a "T" and believe we could set up next one in 3 hours. Without laying roof after foundation is down, can be erected in 1½ hours.

Think highly of this building, as do all my neighbors; in fact, am sending you the name of one of my neighbors who would like to have the literature on your garages. Please forward to him.

Thanking you for past favors, I am, A Satisfied Customer.

(Signed) ALBERT WISNASKY.

PERFECT IN EVERY WAY

——, Penn.

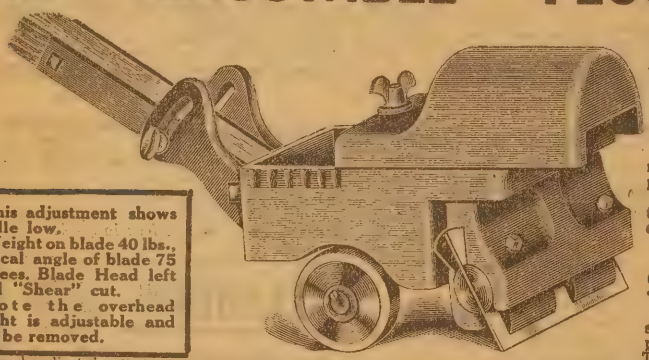
Harris Bros.

Dear Sirs: Enclosed you will find a picture of "PRESTO UP" Garage, of which we are very proud, and everyone marvelled at how quickly it was put up after it came. It is perfect in every way and I think it will be a fine advertisement in this town for you.

Sincerely,

(Signed) H. K. HEILHECKER.

THE "ADJUSTABLE" FLOOR SCRAPER $37.50



This adjustment shows handle low.
Weight on blade 40 lbs., vertical angle of blade 75 degrees. Blade Head left hand "Shear" cut.
Note the overhead weight is adjustable and may be removed.

OUR GUARANTEE: Five days are allowed for a thorough test. If the "Adjustable" does not do all we claim, send it back and we will return your money, paying freight both ways.

INTRODUCTORY OFFER
$60 SCRAPER FOR $37.50

Our object in making this special offer is to introduce the best Scraper that brains and modern ingenuity can devise, and place them where they will show the best results, at a price that is within the reach of all. **Remember, this offer is for a limited time only.**

This machine is regularly sold on the market for $70. Through an exceptionally fortunate buying arrangement we are able to offer it to the public at a **discount of over 50%** from the usual market price. You reap the benefit of this saving.

10-X-1620. "ADJUSTABLE" FLOOR Scraper Complete as above, securely crated, F. O. B. factory near Chicago **$37.50**

The "Adjustable" Scraper can be used by anyone. It is a Quality Machine. It is strong, durable, simple in construction, easy of operation and adaptable to any kind of practical floor scraping. It can be adjusted to suit the convenience of the operator. The blade can be adjusted to any vertical or lateral angle to the floor. The overhead weight can be adjusted so that anywhere from 30 to 40 pounds of pressure rests directly on the blade, will scrape right up in the corners, close to the moulding along the wall, and do perfect and rapid work on hard or soft wood floors, old or new. Simply push and pull the machine forward and backward in an easy, natural way.

For finishing work the weight can be moved entirely, leaving but a slight weight upon the blade. Under a uniform pressure, an absolutely true and even cut is insured, leaving a perfectly smooth surface.

The iron wheels have rubber tires; are mounted on a split axle, so that each wheel operates and any corners or angles can be turned without marking the finished surface.

The weight of the machine is 125 lbs. The blades are 8 inches wide and are made of Disston's Saw Steel—the best blade material manufactured. **With each machine we send complete instructions for operating same.** In addition, we also furnish six Blades, Burnisher and Wrench, all guaranteed against defective workmanship. Extra blades furnished at 90c each.

PAYS FOR ITSELF! **The time you save in wages pays for the machine in a very short while,** you can make some easy money on the side by taking odd jobs. You don't take any chances. All that we ask is that you give it a fair trial and if it does not do all we claim for it, send it back and we will return your money, paying freight charges both ways. The machine must be returned not later than five days after you have received it. This will give you sufficient time to give it a thorough test.

Don't confuse the "ADJUSTABLE" with any other Scraper on the market. The "ADJUSTABLE" is in a class by itself. We are using a number of them right here in our own plant, so if they did not do all we claim we would not be using them ourselves.

$9.50 Buys Adjustable Sander Attachment

This Sander is to be used in connection with the above scraper, and by simply removing the blade can be attached ready to use. It is adjustable to any angle and a straight or diagonal stroke may be used. The weight adjustment also can be used for light or heavy pressure as desired. By running this over the floor a few times it gives it a perfectly smooth surface, and in one-quarter the time it usually takes it is ready for finishing. We suggest that you include one of these with your order for Scraper, so that you can complete your job ready for finishing. Our binding guarantee also protects you on this if you are not satisfied.

10-X-1621. Adjustable Sander Attachment..... $9.50

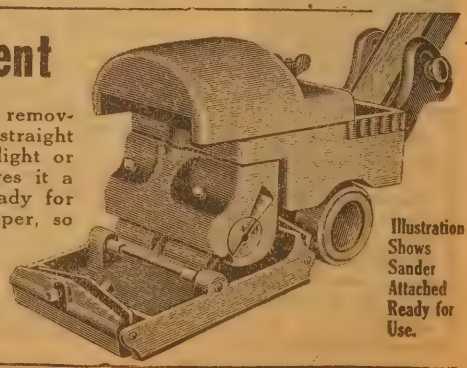
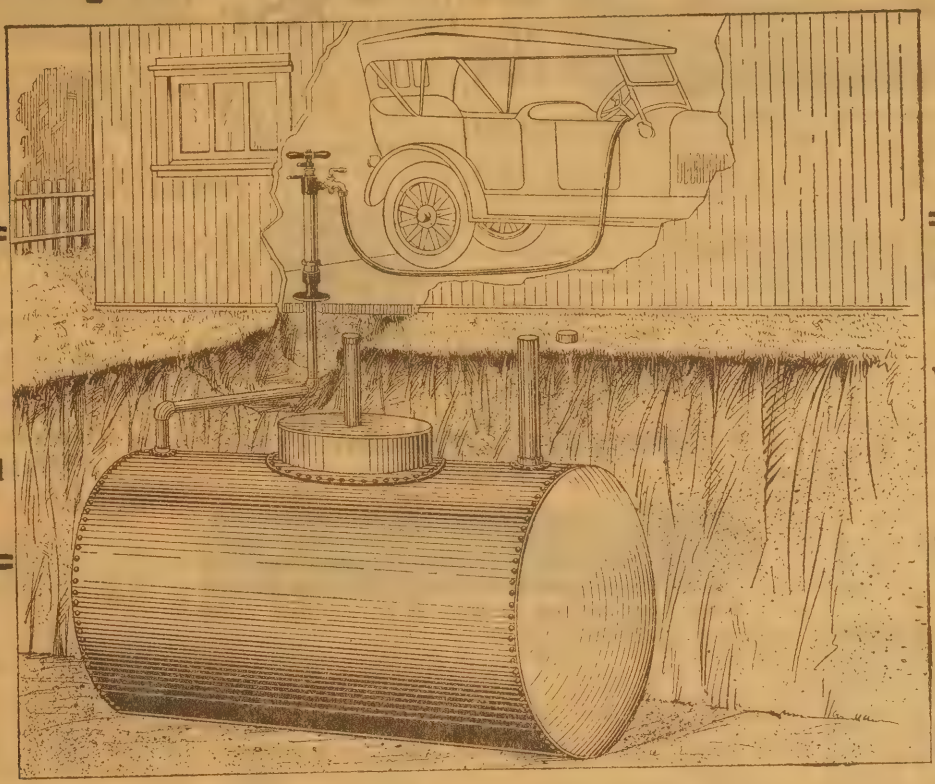


Illustration Shows Sander Attached Ready for Use.

FROM TESTIMONIAL: "I did more work in two hours with the "Adjustable" than an entire gang of six could do in one day by hand."

Gasoline Underground Storage Outfit Complete and Easily Installed!!

Tank is 14 Gauge Galvanized. Painted with Red Mineral Paint

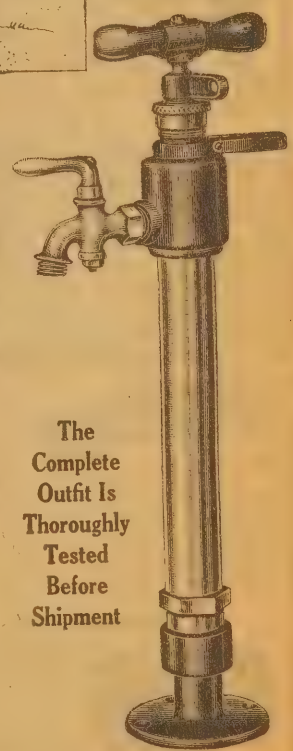


$40.00

With Pump, Pipe and All Fittings Complete

Here's Your Chance to Buy A Splendid Outfit At A Remarkable Saving!!

THIS splendid gasoline underground storage outfit has been carefully assembled to meet the demand for a high grade storage system. Perfectly and safely made. They are built right to positively eliminate all danger of explosion, fire, theft or loss by evaporation or leakage. Offers all the advantages of elaborate high price storage systems now selling everywhere at almost double this low price. It is easy for us to eliminate all competition, for we were fortunate in purchasing a limited number of the excellent tanks furnished at less than the cost to make them. It only remains for us to equip these tanks with the necessary pipe and high grade pump to completely assemble the best storage system money can buy—so, do not delay. Read the specifications below and get your order to us before all the tanks secured in our initial purchase have been used.



The Complete Outfit Is Thoroughly Tested Before Shipment

SPECIFICATIONS

The Tank Measures 31 in. in diameter and 48 in. long. Made of 14 gauge galvanized iron protected on the outside by rust resisting red mineral paint. All joints are securely riveted and soldered to prevent leakage or evaporation. They are re-inforced on the inside with a baffle or stiffening plate, insuring utmost strength, equipped with 2 in. filler pipe with cap, 1 in. vent pipe with cap and ¾ in. suction pipe which is attached to pump.

The Pump Is double acting, giving a continuous flow; inner cylinder 1⅛ in. in diameter. Both made of heavy brass. The pump nozzle has a hose connection which enables you to fill direct to any tank or vessel by using a hose without loss of gasoline through leakage or evaporation. This connection is provided with a shut-off, making it air tight. Pump can be securely locked with an ordinary padlock.

The pump furnished can be detached at any time, making it easy to clean and convenient for all purposes. No intricate parts to get out of order, no fine adjustments to make, no lost time and no trouble.

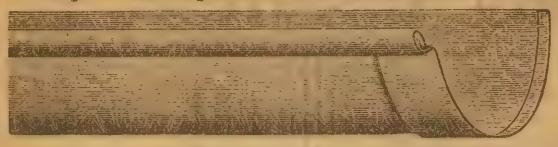
8-X-504 Gasoline underground storage outfit complete with tank of 160 gallons capacity, double acting brass inter cylinder pump with all pipe and fittings. Shipping weight about 200 lbs. Price **$40.00**

HARRIS BROTHERS CO.
25th and Iron Streets, Chicago.

We Have A Special Snap in Steel Sash! Get All Facts!!

Galvanized Trough, Pipe and Trimmings

Improved Slip Joint Galvanized Eaves Trough



Per 10 Ft. **76c**

22-X-401. This is the best and most convenient Eave Trough on the market. It is made of superior quality, heavily galvanized 28-gauge sheets, and will not rust. Each length has an improved slip joint at one end so that the various lengths can easily be put together without soldering—the result being perfectly water-tight joints throughout. Any ordinary workman can put up this eave trough without the aid of a tinner.

When ordering, be sure to state whether you wish to drain the water towards the right or towards the left, as "slip ends" on trough are manufactured accordingly. This eave trough is furnished in 10 ft. lengths. We do not supply cut lengths.

No.	Size Inches	Length per piece	Weight Per Length	Price Per Length
22-X-399	4	10 ft.	5 lbs.	$0.76
22-X-400	4½	10 ft.	5½ lbs.	.84
22-X-401	5	10 ft.	6 lbs.	.89

Galvanized Ridge Roll—Plain Apron

10 Foot Lengths **85c**

A neat water-proof Cap for the ridge of roofs. It is made in 10 ft. lengths and can be used on shingles or any other kind of roofing. We do not furnish cut lengths.

No.	Size of Roll Inches	Width of Apron Inches	Girth Inches	Per 10 Ft. Length
22-X-515	2	2	10	$0.85

Painted Tin Shingles—Flashings—Hip Shingles

Made of roofing tin. Used for making tight joints around chimneys and roof hip finish.

22-X-541. Tin Shingles. Size 5x7 inches. Wt. per 100 pieces, 11½ lbs. Price, each $0.03½
Price, per 100 ..... 3.38

22-X-543. Flashings. Size 7x10 inches. Wt. per 100 pieces, 20 lbs. Each $0.07½
Price, per 100 ..... 7.00

22-X-544. Hip Shingles. Size 4x7 inches. Wt. per 100 pieces, 5¾ lbs. Each $0.04½
Price, per 100 ..... 4.00

Conductor Funnel

28-Gauge Galvanized

22-X-431. Conductor Funnels are used for running two conductors into one outlet. Size given is size of lower spout.

Size, inches	2	3
Price, each	37c	45c

Conductor Strainers

22-X-433. Galvanized Wire Conductor Strainers. To be placed in the outlet of eaves trough, preventing leaves, etc., from stopping up the conductor. Size given indicates the size of the outlet strainers will fit.

Size, Inches	2	3
Price, each	12c	15c

Corrugated Conductor Pipe

— GALVANIZED —

This Conductor Pipe is made of strictly first quality heavy galvanized 28-gauge sheets. Nothing stronger, better or more durable in the way of conductor pipe can be had at this price. It is made in 10 ft. lengths without cross seams. Will not burst when full of ice. Furnished in 10 ft. lengths only.

No.	Size Inches	Weight Per Length	Price Per Length
22-X-410	2	3 lbs.	$0.75
22-X-411	3	4 lbs.	.85

Galvanized Roof Ventilators

Made of Heavy Galvanized Iron

For removing smoke, dust, impure air from halls, churches, schools, factories, stables, etc.; prevents down drafts and improves smoky chimneys.

22-X-555.	4-in.	Wt. about 2 lbs.	$2.60
22-X-557.	6-in.	Wt. about 4 lbs.	3.40
22-X-559.	7-in.	Wt. about 5 lbs.	4.30
22-X-561.	8-in.	Wt. about 8 lbs.	4.45
22-X-563.	9-in.	Wt. about 8½ lbs.	4.65
22-X-565.	10-in.	Wt. about 9 lbs.	5.53
22-X-567.	12-in.	Wt. about 12 lbs.	5.85

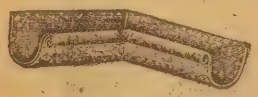
End Cap Slip Joint

22-X-421. Made in one piece. Used to close ends of eaves trough and adjustable outlets.

28-Gauge Galvanized—Standard Weight.

Size	Price, ea.
4	9c
4½	10c
5	11c

Galvanized Corner Mitres



These corners are made with both inside and outside bead. Be sure to order according to number.

28-Gauge Galvanized—Standard Weight.

22-X-403. Outside corner slip joint, right hand.
22-X-405. Outside corner slip joint, left hand.
22-X-407. Inside corner slip joint, right hand.
22-X-409. Inside corner slip joint, left hand.

Size, inches	4	4½	5
Price, each	$0.27	$0.30	$0.34

Painted Valley Tin

Made of High Grade Tin Plate in a continuous length, locked and soldered. Full lengths are 50 feet. Will furnish any length desired. Painted one side.

	Width, in.	Wt., per roll	Price per foot	Price 50-ft. roll
22-X-529.	14	30 lbs.	$0.13	$5.80
22-X-531.	20	48 lbs.	.16	7.14

Elbows

Galvanized Corrugated

13c

These elbows are made of corrugated galvanized 28-gauge steel, at an angle of 45 degrees.

No.	Size Inches	Price Each
22-X-422	2	$0.19
22-X-423	3	.20

Conductor Shoes

Galvanized Corrugated

19c

Conductor Shoe, made of galvanized steel.

22-X-429.

Size, inches	Price, each
2	19c
3	22c
4	32c

Wire Hangers

22-X-435. Made of gal- vanized wire, and is the most simple and satisfactory hanger on the market.

Size, inches	4	4½	5
Price per dozen	33c	35c	38c

Galvanized Box Gutters

Made of No. 28- gauge galvanized steel and furnished in 10 foot lengths, both ends open.

	Girth	Wt., per 100 Ft.	Size	Depth	Price, per Foot
22-X-501.	18-inch	108 lbs.	6-inch	5¾	20c
22-X-503.	20-inch	120 lbs.	7-inch	6½	25c

Extra for any of the above sizes one end closed 50c

Galvanized Box Gutter Mitres

22-X-507. For 18-in. girth. Price, each 55c
22-X-509. For 20-in. girth. Price, each 65c

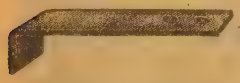
Dependable Material Savingly Priced

Conductor Hooks

These tinned Conductor Hooks are intended for corrugated conductor pipe.

No	Size Inches	Price per Dozen for Wood	Price per Dozen for Brick
22-X-438	2	$0.36	$0.39
22-X-439	3	.42	.47

Strap Hangers for Box Gutters



Be sure to mention girth.

22-X-122. Each.....40

Tinners' Snips

Best quality, Hand Forged Tinners' Snips, fully guaranteed.

4-X-545. 2½-in. cut. Price, each $1.15

4-X-547. 3-inch cut. Price, each $1.30

Rawhide Oiled Insulated Sheathing

Air, Water and Vermin Proof

This, as well as all material bearing this brand, is of the very highest quality. We know that in our Rawhide we are offering the very best building paper that was ever put on the market. It is **absolutely Air, Water and Vermin Proof,** and will undergo the severest heat test without becoming hard or brittle. It is put up in rolls weighing approximately 20 lbs. and guaranteed to contain **400 square feet.** Is 36 inches wide.

10-X-100. Rawhide Building Paper. Per roll..... **$2.65**

Rain Water Cut Off

For Corrugated Conductor, Pipe 22-W-422.

28-Gauge Galvanized—Standard Gauge

Size, In.	Price, Ea.
2	59c
3	63c
4	73c

22-X-4222. 26-Gauge Galvanized—extra heavy.

Size, In.	Price, Ea.
2	88c
3	$1.06
4	$1.25

Adjustable Outlet

22-W-419. Consists of a short piece of about 6 inches of trough, with slip joint on one end, drop outlet soldered on bottom close to the other end to connect to the conductor pipe. End cap extra.

22-X-419. 26-Gauge Galvanized—Extra Heavy.

Size, inches	3½	4	4½	5	6
Fitted for Conductor, inch	2	2	3	3	4
Price, each	$0.16	$0.17	$0.19	$0.20	$0.22

Sheathing Paper, Felt and Sundries

To Be Used Under Floors, Shingles, Clap Boards—on Walls & Ceilings

Sheathing Papers Are Not Suitable for Roofing Purposes

"PREMIER" Red Rosin Paper

A Sized Sheathing Paper, made by special process, faced on both sides, thoroughly rosin sized, making it damp-proof and vermin proof. We guarantee this paper to be absolutely the best for ordinary building purposes. Put up in rolls of 20 lbs., 30 lbs., 40 lbs.; 36 inches wide, containing about 500 sq. ft.

No.	Weight	Price, per Roll
10-X-10	20 lbs.	$0.98
10-X-11	30 lbs.	1.35
10-X-12	40 lbs.	1.80

(500 Square Feet in each Roll.)

"PERFECTION" Tarred Felt

Used for roofing, sheathing and general building purposes. Made of the best grade of wool felt, carefully selected, thoroughly saturated with distilled tar. Warranted to unroll freely without sticking.

Grade No. 1 is our heaviest and is used as a sheathing paper for all general purposes. Grade No. 2, medium weight, makes an excellent sheathing paper.

Rolls 32 inches wide, weighing approximately 60 lbs. each.

10-X-13. Grade No. 1, 225 Sq. Ft. to roll.
Price, per roll.....$3.96

10-X-14. Grade No. 2, 450 Sq. Ft. to roll.
Price, per roll.....$4.15

"PERFECTION" Deadening Felt

Made of the very finest selected grade of wool felt, soft and pliable. It is used to deaden sound between floors and walls. We recommend that it be used under floors as it adds to the warmth of the building. Put up in rolls 36 inches wide.

10-X-15. Grade No. 1, 1½ lbs. per square yard, 75 lbs. to roll.
Per roll.....$6.90

10-X-16. Grade No. 2, 1 lb. per square yard, 50 lbs. to roll.
Per roll.....$3.75

"Perfection" Slaters' Felt

This is the ideal sheathing paper and is also used largely under metal and slate roofs. It can be used in place of red rosin or any other of the sheathing papers we offer. It is put up in rolls 36 inches wide, each roll containing 500 sq. ft. Weight, per roll, approximately 35 lbs.

10-X-18. Price per roll.....$2.15

"Perfection" Tarred Felt "SECONDS"

This is a very popular sheathng paper, and is made of felt thoroughly saturated with distilled coal tar. Reinforced with extra strong threads. It is put up in rolls 36 inches wide.

10-X-102. Rolls containing 250 sq. ft., weight 25 lbs. Per roll.....$0.88

10-X-103. Rolls containing 500 sq. ft., weight 50 lbs. Per roll.....$1.58

Blue Plaster Board

Here is the best grade of Plaster Board manufactured. It is guaranteed to be strong, tough paper. Used on clap boards for sheathing and on walls in place of plaster. When used for this purpose, it is tacked to the studding and wall paper can be placed over it, making a very satisfactory body. Put up in rolls 36 inches wide.

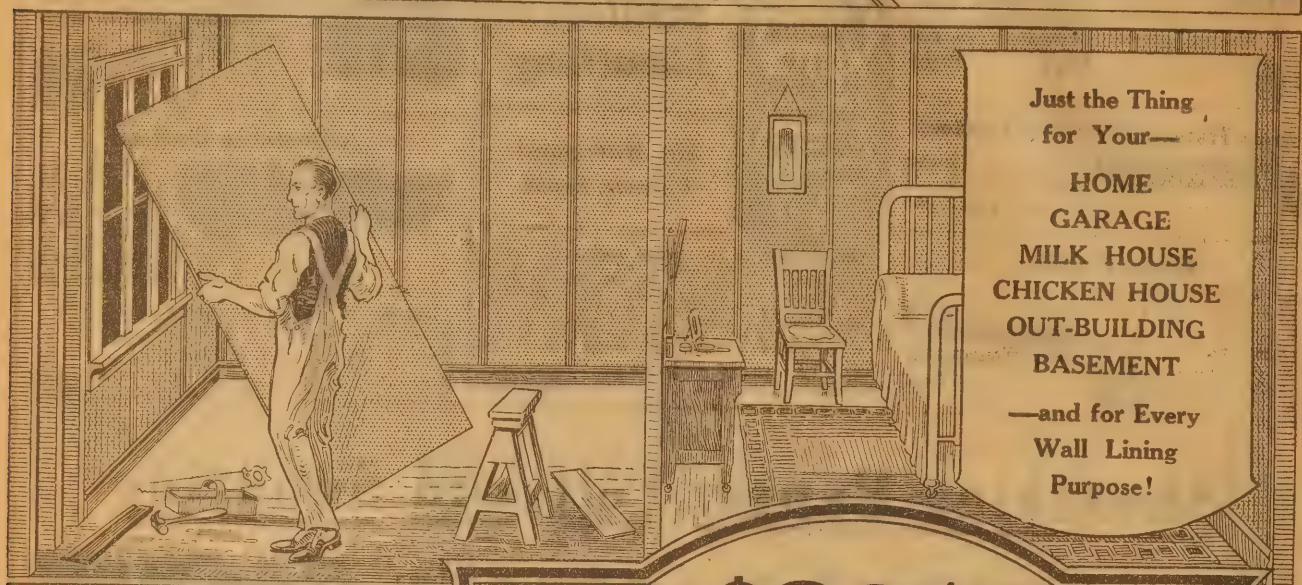
10-X-16. Rolls containing 250 sq. ft., weight 30 lbs. Price.....$2.70

10-X-17. Rolls containing 500 sq. ft., weight 60 lbs. Price.....$4.50

The conditions created by the war has resulted in an unusual heavy demand for paper of all kinds, especially felts. We are, therefore, forced to reserve the privilege of making price changes according to the fluctuations of the market.

Wallboard!

Make Cosy Rooms of the Unused Space in Your Home at Little Cost



Just the Thing for Your—

HOME
GARAGE
MILK HOUSE
CHICKEN HOUSE
OUT-BUILDING
BASEMENT

—and for Every Wall Lining Purpose!

Special Low Sale Price $3.25 Per Square of 100 Sq. Ft.

HARRIS Wallboard is offered now at a big saving! It is the product of a well known manufacturer but owing to special sales arangements, we are not privileged to publish their name. We purchased this Wallboard in 32 in. and 48 in. widths in lengths up to and including 12 ft. It is all brand new board of excellent quality and a very unusual value at our low sale prices.

15-X-1700. Miscellaneous lengths and widths, not selected.
Per 100 sq. ft. **$3.25**

Special Sale Proposition ! !

If it is necessary for you to have specified lengths and widths, just send us the dimensions of the surface you intend to cover and we will select your Wallboard in the desired lengths and widths that will work to best advantage.

15-X-1800. Wallboard, selected.
Per 100 sq. ft. **$3.50**

Wall Board Tape

15-X-1900. Wallboard Tape in rolls of 100 lineal feet.
Per roll **20c**

All Prices are F. O. B. Chicago

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Asphalt Shingles
Slate Coated

Five Special Sale Snaps!!

Slab Shingles—Four in One

These shingles are in strips approximately 30 inches long by 9½ inches wide. They are laid as illustrated and represent a great saving in labor, because they are laid four times as fast as an individual shingle. Furnished with either red or gray crushed slate coating.
Lot No. 13-X-1100. Slab shingles. Per square of 100 square feet.....**$6.50**

Seconds—Specially Selected

We have a limited quantity of seconds in slab shingles, the same as described under the above lot number, except that the coating is more or less defective. Furnished in red or gray, but give us the privilege to ship either we have in stock.
Lot No. 13-X-1200. Slab shingles seconds. Per qsuare of 100 feet.....**$5.50**

Individual Shingles

Every buyer of shingles is familiar with the asphalt shingle coated with red and gray slate, furnished 8x12¾ inches in size. Shingles are laid 4 inches to the weather and ½-inch apart.
Lot No. 13-X-1300. Individual shingles.
Per square of 100 square feet.....**$6.50**

Seconds in Individual Shingles

We can also furnish in limited quantity only the same material described under Lot No. 13-W-1300 in seconds. These shingles are so selected on account of more or less defective coating and are offered while they last only at an exceptionally low price.
Lot No. 13-X-1400. Individual slate coated shingle seconds.
Per square of 100 square feet.....**$5.50**

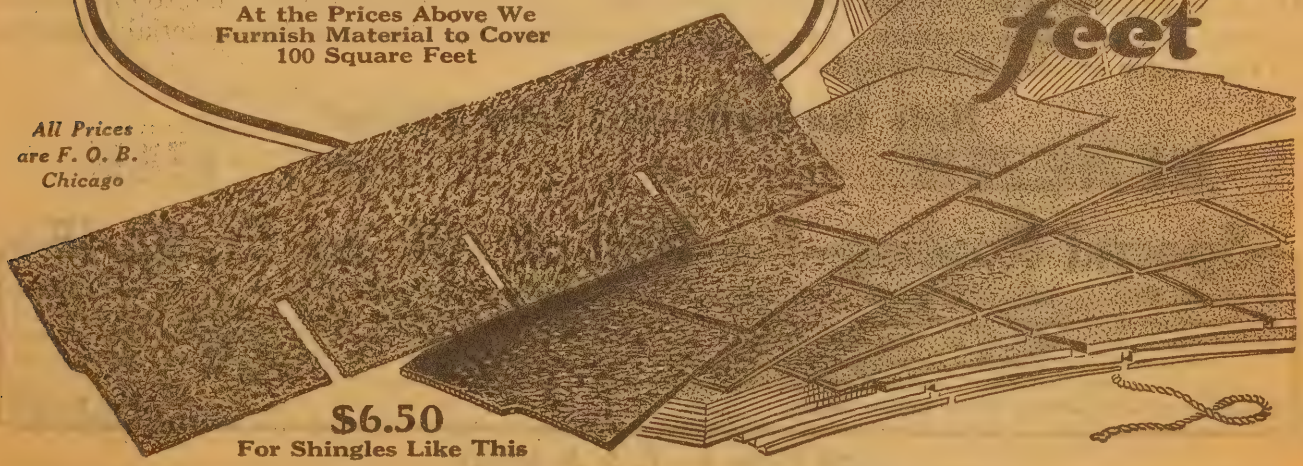
Roll Roofing Stamped Like Shingles

This material is put up in rolls of 108 square feet to the roll, covering surface of 100 square feet. It is made in the same quality as the shingles described above and can be furnished in either red or gray stamped in black to represent square butt shingles. This roofing, when laid, presents exactly the same appearance as the roof illustrated above. With this roofing we furnish nails and cement.
Lot No. 13-X-1500. Roll roofing, shingle imitation. Per roll.....**$3.15**

At the Prices Above We Furnish Material to Cover 100 Square Feet

$3.15 Per 100 Square feet

All Prices are F. O. B. Chicago



$6.50
For Shingles Like This

Big Special Snap in Ajax Roofing!!

AJAX ROOFING is brand new stock, put up in full rolls containing 108 square feet and will run in standard weight. It is furnished mostly in smooth surface stock and is made to sell in continuous lengths at much higher prices. The only reason we are able to offer Ajax roofing at the prices indicated in this catalog is on account of the fact that the material is put up in two, three or four lengths to the roll.

Note the Following Low Prices!

Lot No. 13-X-1000—Ajax 1-ply.....$1.22 per roll
Lot No. 13-X-1001—Ajax 2-ply.....$1.60 per roll
Lot No. 13-X-1002—Ajax 3-ply.....$1.85 per roll

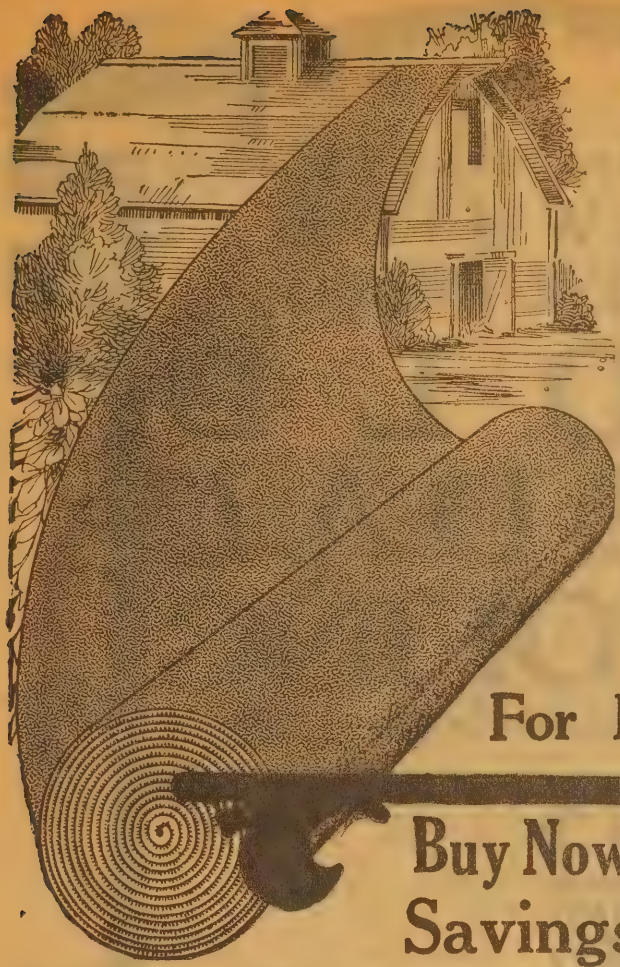
Special Roofing--Per Roll of 100 Sq. Ft. $2.45

A special Roofing snap—All heavier than 3-ply—As a special attraction for this page, we offer a lot of about two car-loads of roofing as a special snap. This is an extra high grade stock, containing sanded and double sanded mineral surfaced and pebble surfaced and also mica surfaced. There are none of the rolls that will run lighter than three-ply and the stock is sold on the market under regular grade names at not less than $3.00 per roll. We can offer you this material at prices we are quoting, only because stock will run in some cases in more than one piece to the roll.

Lot No. 13-X-1004—Extra heavy rubber roofing.....$2.45 per roll

All Prices Are F. O. B. Chicago

Watts Corn Shellers Sold Only By Us



Rawhide Rubber Roofing

"As Tough As Its Name"

$1.55 Per Square

100 Square Feet

For Every Roofing Purpose

Buy Now! Prices Lower Than Ever Savings Greater Than Ever!

Not How Cheap—But How Good!

YOU will buy raw-hide rubber roofing, because we stand back of every roll with an iron-clad quality and service guarantee. This roofing has been used with the best of success by thousands of our customers and the only come back we have ever had on our raw-hide rubber roofing is another order. It is made only in standard weight, on extra quality wool felt, thoroughly saturated with pure asphalt and surfaced with the best water resistant known to this class of material. Rolls contain 108 square feet and are complete with nails and cement.

Lot No. 13-X-1005—Raw-hide, 3-ply	$2.10 per roll
Lot No. 13-X-1006—Raw-hide, 2-ply	$1.90 per roll
Lot No. 13-X-1007—Raw-hide, 1-ply	$1.55 per roll

Tar Paper 35c Per Roll

You probably have a dozen uses for tar paper around your basement—chicken coop lining—basement lining, sheathing, etc. We recommend the use of this paper underneath asphalt shingles and iron roofing. No farm should be without a supply of this material. It always comes in handy. The low sale price we now offer should encourage you to lay in a big supply for your future needs.

Lot No. 13-X-1008—Tar Paper....35c per roll of 108 square ft.

Repair Job Roofing, Per Roll, $1.29

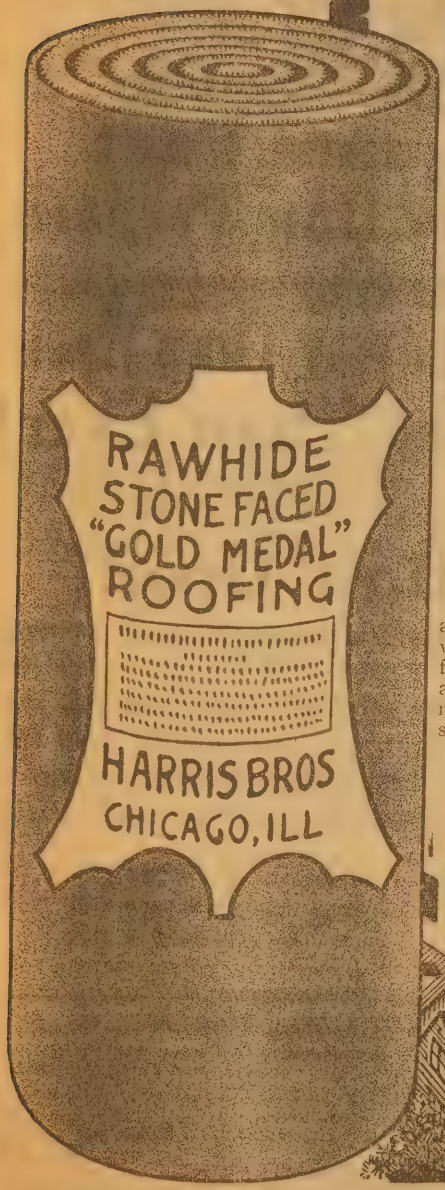
As roofing is bundled automatically 108 square feet to the roll there will be left ends of the rolls four to eight foot lengths. We have made arrangements to bundle these lengths in what is known as spliced stock. Some of the rolls will run in one and two-ply and others in two and three-ply, etc. The material is recommended especially for repair jobs, lining and similar purposes.

Lot No. 13-X-1009—Spliced Roofing, per roll..... $1.29

Our Guaranteed Roofing

RAWHIDE STONE FACED

GOLD MEDAL ROOFING



First Cost is not Always the First Item to be Considered

$2.75 PER ROLL 108 SQ. FT

This material is another member of our "Raw-hide family." It is made on the same excellent backing of wool felt base as our Raw-hide rubber — is saturated with the best quality of Trinidad asphalt. The ground coating pressed into the surface of this roofing on both sides while the asphalt is hot, gives it a weather-resisting surface known to no other class of material. It will resist fire and lightning and will not ignite from flying brands or sparks.

This material **will give long and lasting service.** We know from actual experience that in the manufacture of Gold Medal roofing we have attained a near mark of perfection. This stock is made, for the first time in the history of its manufacture, in two weights as quoted below. The rolls will contain 108 square feet, are furnished with nails and cement and covered by our guarantee of satisfaction.

PRICES

Lot No. 13-X-514 — Gold Medal, standard weight, 15 year guarantee, complete, per roll . $2.75

Lot No. 13-X-515 — Gold Medal, extra heavy, 20 year guarantee, complete, per roll . $3.10

F. O. B. CARS CHICAGO

Roofing Accessories on preceding pages.

Natural Colored RED & GREY Slate Coated Roofing!!

EVERY buyer of roofing and observer of dwellings is familiar with slate coated roofing and the unusual demand for this class of material on account of the color has led us to contract heavily for this material during this season. We offer you the following selection:

SUPERIOR SLATE COATED ROOFING

The name superior implies the quality of the stock and describes it as selected. It is the best grade of slate coated roofing, weighing 80 pounds to the roll or heavier and can be furnished in either red or grey surfacing, complete with nails and cement. This roofing is at least $1.00 per roll less than similar value offered on the market at this time.

Lot No. 13-X-506. Superior Slate Coated Roofing.....$2.75 per roll

Unsorted Slate Coated Roofing

This material will be furnished you exactly as it runs from our factory, without unrolling to ascertain the number of lengths to the roll or the defect in surfacing. Each roll will contain 108 square feet and be complete with nails and cement.

Lot No. 13-X-504. Red and Grey slate coated mill ends, unsorted.....$2.10 per roll

Special Selected Slate Coated Roofing

At an advance of 20c per roll, we will open up each and every roll of slate roofing to ascertain the extent of the defective slate surfacing and see that the number of pieces in the roll is proportionate to good work, that desirable results may be obtained. This material can be furnished in either red or grey slate coating, whichever you prefer. Each roll will contain 108 square feet and be complete with nails and cement.

Lot No. 13-X-505. Special Selected Slate Coated mill ends.....$2.50 per rol

All Price Are F. O. B. Chicago

HARRIS BROTHERS CO.
15th and Iron Streets, Chicago.

Send us a Rough Sketch of Your Building for Snap Prices!

YOUR BIGGEST CHANCE TO BUY PAINTED CORRUGATED SHEETS!

THE roofing we list below in four different grades is overhauled, reclaimed and re-finished stock. The sheets are all carefully trimmed, re-corrugated and painted with a good grade of asphalt paint which acts as a further preservative. All sheets uniform size, 5½ feet long and 2 feet wide, 2½" corrugated only, furnished in the following grades:

7-X-5060—28 gauge, recommended especially for siding.
Per square..... **$2.50**

7-X-5070—28 gauge, sorted, recommended for roofing where standard weight will answer.
Per square..... **$2.75**

7-X-5180—26 gauge, heavy, for roofing or siding.
Per square..... **$3.50**

7-X-5190—24 gauge, the best and heaviest grade.
Per square..... **$4.00**

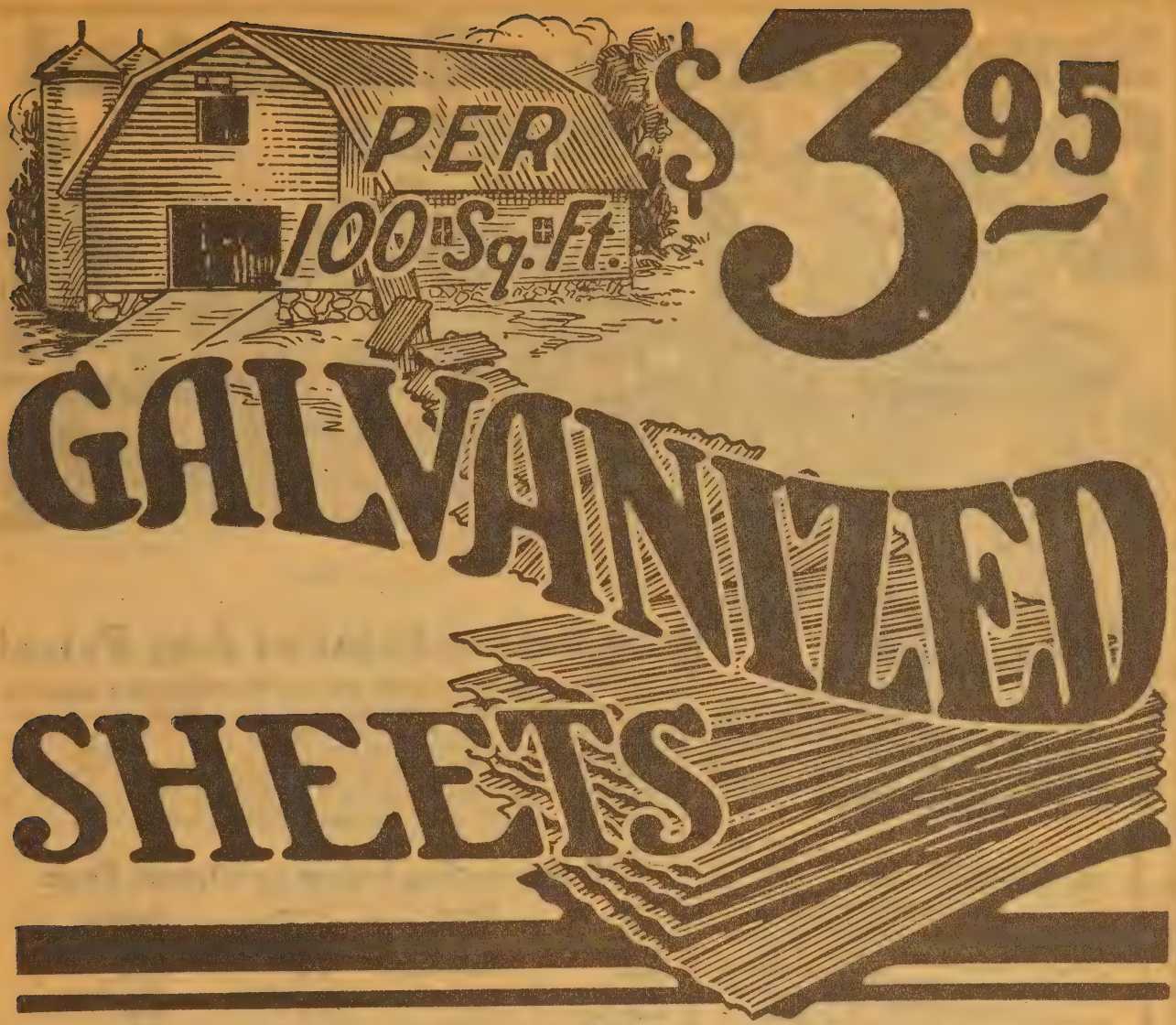
ROOFING ACCESSORIES

7-X-5204—Nails for laying metal roofing, per square..... 10c
7-X-5205—Lead washers to use under nail heads, per square..... 10c
7-X-5206—Corrugated ridge roll to match roofing, per lineal foot..... 6c

Above Prices Are F. O. B. Chicago

Paint? Ask for Our Color Card!

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago



OVERHAULED GALVANIZED SHEETS AT SPECIAL SALE SAVINGS!

THIS material is all put through a special process of reclaiming and re-finishing and the sheets are all 2½" corrugated, furnished in various lengths. We paint every sheet free of charge with red paint to preserve the galvanizing. We will arrange to sort and ship to you lengths that will work in to your best advantage. Just give us the length of your rafters or the size of the surface you have to cover.

7-X-7602. 28 gauge overhauled galvanized, corrugated sheets. Per square..... **$3.95**

7-X-7603. 26 gauge overhauled galvanized corrugated sheets. Per square..... **$4.65**

7-X-7604. 24 gauge overhauled galvanized corrugated sheets. Per square..... **$4.95**

ROOFING ACCESSORIES

Nails for laying metal roofing..... 10c per square
Lead washers to use under nail heads..... 10c per square
Corrugated ridge roll to match roofing..... 6c per lineal foot

All Prices F. O. B. Chicago

Save Big Money on Guaranteed HOUSE PAINT

$2.47 Per Gallon

Guarantee HOUSE PAINT

We Guarantee every gallon of "Harris" house paint to be equal in every respect to the highest priced paints on the market. We guarantee that it will come up to your highest expectations in spreading and wearing qualities, appearance and fastness of color. The purpose of this guarantee is to give you an assurance of satisfaction, and if you are not pleased in every way, or if for any reason you are not satisfied with your purchase of "Harris" house paint, we will replace every gallon you have purchased free of charge.

HARRIS BROTHERS CO.

No Better Paint at Any Price!

THE quality of the paint you use should be more carefully considered than probably any other material you buy. The purchase of good paint—the kind that is made from a scientific formula of finest ingredients, is real genuine economy. "Harris" house paint is good paint. It spreads with an evenness over the greatest possible surface and will wear the longest possible time, retaining its appearance and protective qualities. Pure linseed oil, lead and zinc are used as the main body. You can pay more for your paint, but you'll not get better paint than "Harris" paint. Pay less and you'll sacrifice quality.

32 Non-fading Colors to Choose From

White	Maroon	Brown	Russet
Olive	Pea Green	Straw	Light Yellow
Orange	Azure Blue	Bronze	Pink
Drab	Ivory Yellow	Blue	Slate
Chocolate	Lilac	Light Grey	Terra Cotta
Dark Grey	Canary	Oak	Grey
Venetian	Blue Green	Peacock Blue	Buff
Fawn	Cream	Tan	Black

Order No. 9-X-700

1 quart cans.....Each $0.79
1 gallon cans.....Each 2.64
5 gallon kit, per gal.....$2.60
25 gallon (½ barrel), per gal. 2.57
50 gallon barrels, per gallon.....$2.47

PAINT and BRUSH

5 Gallon Kit of Harris House Paint and One High Grade 4-inch Brush (Set in Rubber) $13.95

As an added attraction for this limited sale, we have made special arrangements to supply our customers with a 5-Gallon Kit of Harris Guaranteed House Paint and a 4-inch Brush with Pure Black Bristles 3¾ inches long, set in vulcanized rubber, at this big money saving. The brush furnished is of excellent quality, worth $1.25. This special offer is made to our customers only during this great sale.

Order No. 9-X-701—5-Gallon Kit of Harris House Paint and one High Grade 4-inch Brush.....$13.95

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Paints for Your Buildings!

BARN PAINT $1.50 Per Gallon

Features Every Necessary Quality!

HARRIS BARN PAINT is made by the same splendid process as Harris House Paint. Only the best ingredients are used in its formula. As a covering for your barns and for other similar outside work, it has no superior. Those who have used Harris paint before know that it can be depended upon to complete a job that will wear perfectly under most severe conditions and positively will not fade. Add to the excellent quality of this paint the money-saving advantages now yours in our low sale prices and you have the most attractive paint offer ever made.

6 Popular Colors to Choose From

REGULAR COLORS		SPECIAL COLORS	
Red	Yellow	*Green	*Slate
Maroon		*Lead	

*The colors indicated as "special colors" above require more expensive color ingredients than the regular colors, and consequently we are forced to advance these prices slightly. Inferior substitutes could be used which would sacrifice quality. We must naturally supply best paint to you under our binding guarantee.

FOR REGULAR COLORS
Order No. 9-X-702

1 gallon cans, each	$1.60
5 gallon kits, per gal	1.56
25 gal. (½ barrels), per gal	1.54
50 gal. barrels, per gal	1.50

FOR SPECIAL COLORS
Order No. 9-X-703

1 gal. cans, per gal	$1.90
5 gal. kits, per gal	1.86
25 gal. (½ barrels), per gal	1.84
50 gal. barrels, per gal	1.80

Guarantee BARN PAINT

We Guarantee every gallon of "Harris" Barn paint to be equal in every respect to the highest priced barn paints on the market. We guarantee that it will come up to your highest expectations in spreading and wearing qualities, appearance and fastness of color. The purpose of this guarantee is to give you an assurance of satisfaction, and if you are not pleased in every way, or if for any reason you are not satisfied with your purchase of "Harris" Barn paint, we will replace every gallon you have purchased free of charge.

HARRIS BROTHERS CO.

COMBINATION SAVINGS!

$8.75 Buys A 5-Gallon Kit of Harris Barn Paint and A High Grade 4-inch Brush (Set in Rubber)

During the period of this sale only, we offer this special outfit to our customers at this money saving. A 5-Gallon Kit of Harris Guaranteed Barn Paint and a High Grade 4-inch Brush set in vulcanized rubber, 4 inches wide, with pure black bristles 3⅜ inches long. The brush is the regular $1.25 kind. This offer expires at the close of this great sale.

Order No. 9-X-704—5-Gallon Kit of Harris Barn Paint and a High Grade 4-inch Brush.....$8.75

If any of the special colors are wanted, add $1.50

Some Special Savings in Painter's Needs

55c Per Gallon

A new method of preserving the life of metal, paper and composition roofing. A liquid compound that will quickly and permanently seal all leaks, cracks and holes in any kind of a roof, making a perfectly water tight covering. This covering will add years of service to your roof. It seals all small holes, caused by rust and deterioration. Absolutely water proof and sun proof. It is a heavy rubber-like combination of durable oils, reinforced with asbestos fibre. Apply in a heavy coat, using about one and one-half gallons to the hundred square feet.

9-X-150—	Per Gal.
1 gal. can—shipping wt., 15 lbs.	85c
5 gal. can—shipping wt., 75 lbs.	70c
25 gal. ½ bbl.—shipping wt., 225 lbs.	60c
50 gal. bbl—shipping wt., 500 lbs.	55c

4½c Per Pound

Makes a one piece, no seam roof. Guaranteed to stop roof leaks no matter how old the roof. One application of asbestos fibre roof cement will give years of additional service. It stops leaks in tin, wood, felt or paper roofs. Permanently seals leaks in basement walls, leaky gutters and spouting. Apply with a trowel, spreading cement about ⅛ inch thick.

9-X-151—	Per Lb
5 lb. can	11c
10 lb. can	10c
25 lb. pail	9c
100 lb. keg	7c
300 lb. half barrel	6c
550 lb. barrel	4½c

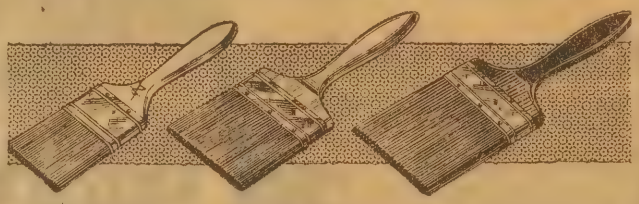
Harris Auto Enamel

$1.50 Per Quart

Harris Auto Enamel is particularly made for refinishing automobiles. It is simple to use, and requires no expert knowledge. Applied with a fine brush. You can obtain a smooth surface. No brush marks will show. Complete directions sent with each can. Dries quickly. Supplied in ten colors: Black, brewster green, deep green, dark blue, battleship grey, medium green, yellow, tan, red and white.

9-X-585—	
1 quart can	$1.50
1 pint can	.80
½ pint	.45

—Bargains in Good Brushes—



RUBBERSET HOME BRUSH

For varnishing, enameling, staining, or painting. A most durable brush. Selected Chinese bristles, solidly imbedded in hard vulcanized rubber.

9-X-1301—
2 inches wide....65c

4 INCH WALL BRUSH

This brush is specially manufactured for us from pure black bristles 3⅜ in. long, vulcanized in rubber. A high grade brush that is guaranteed to give satisfactory service.

9-X-58 .....$1.25

SPECIAL WALL BRUSH

Made of all pure black Chinese bristles 4½ in. long, 4 in. wide, vulcanized in rubber. Suitable for painters or others who use a brush continuously. Packed in individual boxes.

9-X-1339 .....$1.50

Flat Wall Paint

75c Per Quart

For interior walls. A high grade oil paint which dries to a soft flat tone, possessing an elastic finish. A sanitary paint, which will not rub off; may be washed with soap and water. Will not spot, turn color or fade. It is prepared, ready for use. Eleven colors: White, tan, light yellow, pea green, grey, yellow, pink, azure blue, deep green, maroon.

9-X-905—	
5 gallon cans. Per gal.	$2.75
1 gallon cans. Per gal.	2.80
1 quart can. Per can	.75

Harris High Gloss Enamel

For fine interior enamel work. These enamels are especially prepared to meet "easy to apply" requirements of the novice or housewife. Particularly adapted for walls and ceilings in bed rooms, bath rooms, and kitchens. Made in twelve beautiful shades: White, pale blue, deep green, vermillion, sea green, rose pink, orange, royal blue, silver grey, green, carmine and black.

9-X-921—	
1 gallon cans	$3.25
1 quart cans	.85
½ pint can	.25

White Washing and Painting Machine

SPECIAL SALE PRICE $21.00

The most practical and economical machine manufactured for whitewashing and painting. Can be used with either whitewash or cold water paints, or for spraying trees, 25 ft. high or more. Body is made of 24 gauge galvanized steel, fitted with brass cylinder valve pump, which produces a high pressure. Every machine is equipped with an agitator which works at every stroke of the pump, and keeps the solution thoroughly mixed. Every machine is equipped with solution strainer, and is guaranteed to give entire satisfaction. Ten-gallon capacity, complete with 10 ft. of ½ inch high grade hose, 1 nozzle and 8 foot extension rod.

9-X-321 .....$18.00

High Grade Varnishes

EXTRA COACH VARNISH

Suitable for the best interior work. Varnish of medium color and good body. The most durable varnish for this grade of work. Can be rubbed or left in the gloss. Dries dust free in three to four hours.

9-X-1007—	
1 pint cans	$ .40
1 quart cans	.65
1 gallon cans	2.20
5 gallon cans	10.50

WEARING FLOOR VARNISH

The highest grade floor varnish. Suitable for use on natural wood or painted floors. An elastic varnish that will not scratch, turn white or show heel marks. A most economical and durable floor varnish.

9-X-1013—	
1 pint cans	$ .45
1 quart cans	.75
1 gallon cans	2.50
5 gallon cans	12.00

HARD OIL FINISH

A good varnish at an unusually low price. Has a fine gloss and will rub nicely. Light in color and dries dust free in eight hours. Get the benefit of these big sale savings.

9-X-1001—	
1 pint	$ .35
1 quart	.50
1 gallon cans	1.50
5 gallon cans	7.00

are Carefully Chosen for this Book!

$1.25 Per Gallon

An ideal roofing coating, for wood, metal or composition roofs. Tough and elastic. The colors produce a beautiful effect, harmonizing with the colors used in your house paint. Made of the best grade Trinidad asphalt, especially treated and combined with pure boiled linseed oil. When dry it forms a tough elastic surface. Is not affected by expansion or contraction, acids, gases, or alkali. One gallon will cover two hundred and fifty feet smooth surface. Supplied in four colors, maroon, green, brown and black.

9-X-913—	Per Gal.
1 gallon can	$1.35
5 gallon can	1.33
25 gallon half barrels	1.30
50 gallon barrels	1.25

$1.20 Per Gallon

The best wood preservative known. Harris Creosote Shingle Stain is scientifically prepared. The colors are extremely durable, and attractive, and are guaranteed not to fade. This shingle stain is a particularly high grade material, which we guarantee to satisfy you entirely. Can be applied with a brush after shingles are laid, or shingles can be dipped before laying. When applied with a brush one gallon will cover about 150 square feet of surface one coat. For dipping it requires 2½ to 3 gallons per thousand shingles. Supplied in six colors, brown, medium green, moss green, weathered oak, venetian red, and light green.

9-X-901.	1 gallon cans, per gallon $1.30
9-X-902.	5 gallon cans, per gallon 1.27
9-X-903.	25 gallon half barrels, per gallon 1.23
9-X-904.	50 gallon half barrels, per gallon 1.20

White Lead

Our white lead is non-poisonous, is carefully ground and scientifically mixed. Ground in pure oil. Our "Eclipse" lead is recommended as a low priced lead and will give good service. Our "Premier" lead is of guaranteed quality.

"Eclipse" White Lead—9-X-1113.

100 lb. kits, per pound	12½c
50 lb. kits, per pound	12¾c
25 lb. kits, per pound	13c
12½ lb. kits, per pound	13½c

"Premier" White Lead—9-X-1106.

100 lb. kits, per pound	14¼c
50 lb. kits, per pound	14½c
25 lb. kits, per pound	15c
12½ lb. kits, per pound	15½c

Lubricating Oils and Greases

No. 9-X-601. High grade Tractor Engine Oil tested and approved by leading Tractor manufacturers and highly recommended as a splendid lubricant.

Per gallon	90c
5 gallon cans, per gallon	85c
25 gallon barrels, per gallon	80c
50 gallon barrels, per gallon	75c

Lubricating Oil

A light colored oil, recommended for hand and power machines.

9-X-10819—	Per Gal.
1 gal. can	75c
5 gal. cans	70c
25 gal. half bbls	60c
50 gal. bbls	55c

Red Engine Oil

Highest grade lubricating oil. 500 fire test. 200 viscosity test.

9-X-10815—	Gal.
1 gal. cans	70c
5 gal. cans	65c
25 gal. bbl	53c
50 gal. bbl	50c

Axle Grease

Highest quality refined grease. Lessens friction and lightens draft. Guaranteed to give satisfaction.

9-X-10847—	
10 lb. pail	$1.10
15 lb. pail	1.60
25 lb. pail	2.25

Cup Grease

High grade transmission grease. Will not gum or harden. Prevents rust and reduces friction. A superior lubrication for general tranmission.

9-X-10843—	
5 lb. pails	$1.15
10 lb. pails	2.00

Wall Paper Cleaner

For calcimine, wall paper, window shades, and all interior decoration. Absorbs all smoke, dust and dirt. Will not stain or fade.

9-X-10855. Price per can 10c

Auto Top and Seat Dressing

Make your old car look like new. Harris Auto Top Dressing can be used for rubber, leather, or mohair tops. Fills the cracks, covers the stains, restores the original finish, and preserves the life of the top. Can be used on cushions and backs.

9-X-555—	
1 gallon cans	$4.00
1 quart cans	.90
1 pint cans	.60
½ pint cans	.30

Priced for Real Economy

INTERIOR SPAR VARNISH

Adapted for interior finishes for highest grade work. Light in color. Made from pure, hard gum. Can be left in the gloss or rubbed. Dries hard for rubbing in 48 hours.

9-X-1017—	
1 pint can	$ .50
1 quart can	.85
1 gallon can	2.65
5 gallon can	12.75

OUTSIDE SPAR VARNISH

Recommended for finishing woodwork in bath rooms, or any woodwork that may have hard usage, or come in contact with water.

9-X-1019—	
1 pint can	$ .50
1 quart can	.90
1 gallon can	2.80
5 gallon can	13.50

LINOLEUM VARNISH

Applied over linoleum it gives a hard, smooth, elastic finish that will bend with the linoleum. Will not crack. Not affected by hot or cold water. Dries to walk on over night.

9-X-933—	
1 pint can	$ .45
1 quart can	.80
1 gallon can	2.60
5 gallon can	12.50

Harris High Gloss Laquer

Recommended for finishing furniture and woodwork. This lacquer is especially prepared, so that highest results can be obtained by an inexperienced person. For refinishing woodwork or furniture it has no equal. Scratched and marred pieces of furniture or floors can be made like new by applying one coat of "Harris" High Gloss Lacquer. Fourteen shades, light oak, cherry, gloss white, flat black, rosewood, walnut, dark oak, moss green, gloss black, mahogany, royal red, clear, flat white, and ground color.

9-X-1101—	
1 gallon cans	$2.75
1 quart cans	.65
½ pint cans	.23

Harris Step Ladder

Automatic Self Lock

$1.20

These ladders are made from selected clear pine, fitted with pail shelf, hinges made of galvanized sheet steel, securely fastened to the flanges. This is a durable ladder quoted at a low price.

9-X-1244— 4-ft., 20 lbs. $1.20
9-X-1245— 5-ft., 22 lbs. $1.50
9-X-1246— 6-ft., 26 lbs. $1.85
9-X-1247— 8-ft., 30 lbs. $2.40

Extension Ladders

Strongest and most durable extension ladders manufactured. Made of clear selected pine, and hickory rounds. The extension rollers are of an improved design, simplifying the lowering and elevating of the ladder.

9-X-1250. Two sections from 20 to 40 ft.—per ft. . . 37c

9-X-1250. Three sections from 30 to 60 ft.—per ft. . . 40c

Harris Ready Mixed Strictly Pure Paint

Wearing Qualities Guaranteed

$3.60 Per Gallon

We use nothing but strictly pure sublimed white lead, the best grade of pure oxide of zinc, pure linseed oil dryer and the highest grade pure colors for tinting wherever they can possibly be used. You cannot obtain any better paint of this kind anywhere, and whenever you pay more than we ask for this paint you are absolutely getting no return value whatever. Don't let anyone tell you that more expensive material than we use in manufacturing these goods is obtainable. There is none. Should anyone discover more expensive materials, we will use them.

WE HAVE THE FOLLOWING COLORS AND TINTS

Maroon	Tan	Blue Green	Oak	Slate	Bronze
Olive	Pea Green	Brown Trim	Peacock Blue	Terra Cotta	Russet
Orange	Azure Blue	Straw	Cherry	Buff	Fawn
Drab	Ivory Yellow	Blue	Light Yellow	Chocolate	Cream
Dark Grey	Canary	Light Grey	Pink	Lilac	Inside White
Venetian					Outside White
					Black

WHEN ORDERING MENTION COLOR WANTED

PRICE FOR ANY OF THE COLORS NAMED ABOVE

No. 9-X-311. Harris Ready Mixed 100% Strictly Pure Paint, 50 gallon barrels, per gallon **$3.60**

No. 9-X-309. Harris Ready Mixed 100% Strictly Pure Paint, 25 gallons, half barrel **3.62**

No. 9-X-307. Harris Ready Mixed 100% Strictly Pure Paint, 5 gallon kit, per gallon **3.65**

No. 9-X-305. Harris Ready Mixed 100% Strictly Pure Paint, 1 gallon can, each **$3.75**

No. 9-X-303. Harris Ready Mixed 100% Strictly Pure Paint, ½ gallon can, each **2.00**

No. 9-X-301. Harris Ready Mixed 100% Strictly Pure Paint, 1 quart can, each **1.10**

Now Ready—Our New Free Paint Color Card!

The most complete and attractive paint color folder ever produced. Mounted with chips which show the actual colors of Harris guaranteed paints, stains lacquers, enamels and kalsomine. Makes it easy to select the exact colors you wish. Ask for your copy now.

$2.60 Per Gallon

Harris Interior Floor Paint

Harris Durable Floor Paint. Specially prepared and guaranteed to resist wear, washing with hot water and scrubbing, retains its bright shiny surface. Paint dries overnight with a high gloss. Remains dust free and will be hard enough to walk on in twenty-four hours. Made in the following colors. Grey, russet, yellow, red, lead, green, tan and maroon. Specify color desired when ordering.

9-X-809. Harris Ready Mixed Floor Paint—

5 gallon cans, per gallon **$2.60**
1 gallon cans, per gallon 2.65
1 quart cans ..... .77

Harris Porch Floor Paint

$2.70 Per Gallon

Harris Porch Floor Paint. Specially prepared for floor work of porches and stairways. Guaranteed to resist the effects of rain, sun or most severe weather. It is particularly made of highest grade ingredients, which give the greatest preserving and resisting qualities for outside wear. Dries overnight, and obtains a high luster. Made in the following colors: Grey, russet, yellow, lead, red, green, tan and maroon. When ordering specify color desired.

9-X-810. Harris Durable Porch Floor Paint—

5 gallon cans, per gallon $2.70
1 gallon cans, per gallon 2.75
1 quart cans ..... .82

Harris Weather Proof Cement Coating

Cement Wall Coating

Strictly formulated after careful tests to meet the exact physical and chemical requirements of a masonry surface. Guaranteed the most efficient and damp-proofing treatment. It penetrates into the pores of the surface, and on hardening thoroughly seals them. Will not wash off. Stands the hardest usage. An ideal paint for hotels, hospitals, schools or wherever cement is used. Furnished in dark cement, moss green, tan, brown, copper color and slate.

9-X-1201. Cement Wall Coating—

50 gallon barrels, per gallon **$2.60**
25 gallon half barrels, per gallon **2.65**
5 gallon kits, per gallon **2.70**
1 gallon cans, per gallon **2.75**
1 quart cans, each ..... **.75**

Cement Floor Coating

On ordinary floors it is almost impossible to make them look clean, but with our Harris Cement Floor Coating they not only make an attractive appearance, but are durable and it is almost impossible for any dust to lie on the surface. The concrete absorbs moisture so rapidly that it is impractical to clean them by ordinary methods.

Harris Cement Floor Coating makes the surface waterproof and at the same time so binding the particles that the dust making feature is eliminated. We can furnish same in the following colors: Cement, Pearl Gray, Slate, Terra Cotta.

Lot No. 9-X-1211. One quart cans **$0.75**
Lot No. 9-X-1215. One gallon cans **$2.75**
Lot No. 9-X-1217. Five gallon kit, per gallon **2.70**

Splendid values in brushes. See them now!

FINEST GRADE BRUSHES

9-X-1403. All White Russian Bristle Wall Brush. Extra long and full. Brass bound. A strictly high grade brush and is **guaranteed to give entire satisfaction.**

$1.95

Size	6	7	8
Width, in.	3	3½	4
Length, in.	3⅞	4⅛	4⅜
Each	$1.95	$2.45	$3.75

FLOOR WAXING AND POLISHING BRUSH

9-X-1445. Iron Weighted with Protected corners and sides. Used for waxing and polishing hardwood floors.
15-lb. brush....**$2.50**
25-lb. brush.... **3.65**

PREMIER COLORS IN OIL.

9-X-817. THE STRONGEST, MOST DURABLE UNFADING COLORS OBTAINABLE. For use in tinting or may be used as it is furnished with the addition of proper thinners. Put up in 1 and 5-pound cans.

Colors:	1 lb. cans
Drop Black	$0.30
Ivory Black	.30
Coach Black	.30
Lamp Black	.45
Prussian Blue	1.25
Ultramarine Blue	.45
Cobalt Blue	.68
Raw Umber	.27
Burnt Umber	.27
Raw Sienna	.27
Burnt Sienna	.27
Vandyke Brown	.54
Chrome Green	.35
Blind Green	.35
Scarlet Vermilion	.90
Tuscan Red	.60
English Venetian Red	.20
Chrome Yellow (Light)	.36
Chrome Yellow (Medium)	.36
Chrome Yellow (Orange)	.36
Yellow Ochre	.20
English Rose Pink	.60
English Rose Lake	.60
Light Oak Graining	.30
Dark Oak Graining	.30
Antique Oak Graining	.30
Walnut Graining	.30
Cherry Graining	.30
Mahogany Graining	.30

GLUES - - - GLUES

9-X-331. FIRST GRADE FLAKE GLUE. Suitable for the requirements of the woodworking trade. Can be used on both soft and hard woods. Is especially adapted for furniture repairing. Can also be used for making printers' rollers, emery wheels, white mouldings or any other purpose where great strength and flexibility are required.
Price per pound....38c
Price, 100-pound drums, per pound....36c
Price, 200-pound drums, per pound....35c

9-X-333. XX FLAKE CARPENTERS' GLUE. Specially adapted for cabinet makers, carpenters, chipping glass and general repairing.
Price per pound....31c
Price, 100-pound drums, per pound....27c
Price, 200-pound drums, per pound....25c

9-X-335. XXX KALSOMINE GLUE. A thin cut pure sizing glue, used largely by kalsominers, also by cabinet makers for high-grade joining.
Price per pound....28c
Price, 100-pound drums, per pound....24c

ROPE EXTENSION LADDERS.
32c Per Foot

9-X-1221. TOP SECTION RAISED AND LOWERED BY ROPE AND PULLEY ATTACHMENT. Fitted with improved automatic locking hooks, **FURNISHED ONLY IN TWO SECTIONS. Lengths, 20 to** 30 feet.... **32c**
Price, 30 to 40 ft. Per Foot....36c

LEATHER BOUND PAINT BRUSHES.

9-X-1405. Extra Long Chinese Bristles. A strictly high grade brush. **Fully warranted.** Will hold more paint and spreads smoother than a short bristle brush. It is also used by frescoers and is generally known as a "stucco" brush.

$2.17

Width, inch	3	3½	4	4½
Length, inch	4	4½	4½	4¾
Price, each	$2.17	$2.95	$3.35	$3.75

9-X-1421. The best quality Okatka Bristle Kalsomine Brush. Brass bound. A strictly high grade brush which will give excellent satisfaction. **Fully warranted.**

$4.20

Width, inches	7	8
Length bristles, inches	4¾	5
Price, each	$4.20	$5.95

HARRIS VARNISH STAINS

Stains and Varnishes in One Operation

Recommended for use over a surface already varnished or painted, such as old furniture, varnished or painted woodwork. It is necessary, in order to obtain the best results, to use a stain of a similar shade as the old finish. You cannot finish a Mahogany chair Light Oak by applying Light Oak Varnish Stain. If a change of color is desired, we would recommend the use of our Harris Gloss Lacquer. By using the Ground color as a first coat and the Harris Gloss Lacquer as a finishing coat the change of color can be made. **Harris Varnish Stain dries hard with a high luster and is easily applied with a varnish brush.** It is made in the following colors: Cherry, Mahogany, Rosewood, Dark Oak, Light Oak, Walnut, Antique Oak.

9-X-171. Per half pint can.... **17c**
Per 1-pint can....26c | Per ½-gal. can...$0.82
Per 1-quart can...46c | Per gal. can.... 1.60

OIL STAINS

A Perfect Imitation of Natural Wood

Used for staining interior woodwork and other work not finished. Dries with a flat finish. One or two coats of varnish will produce a fine glossy surface. It is easily applied with a varnish brush. **Made in the following shades:** Cherry, Dark Oak, Mahogany, Light Oak, Rosewood, Walnut, Antique Oak.

Prices on above shades:

9-X-173. Per half pint can.... **15c**
Per 1-pint can....25c | Per ½-gal. can..$0.80
Per 1-quart can...46c | Per gal. can.... 1.55

HARRIS LIQUID WOOD FILLER

For filling or first coating any kind of close grained wood. Thoroughly seals up wood pores, and prevents absorption of moisture. This wood filler is transparent, does not need to be rubbed. Recommended for wood work where one or two coats of varnish are to be applied.
1 quart cans, each....$0.50
1 gallon cans, per gallon.... 1.65
5 gallon cans, each.... 8.00

FARM OR LONG LADDERS.

9-X-123. SIDES ARE MADE OF CLEAR PINE. Hickory rungs fastened in the same manner as our extension ladders. A strong, rigid ladder, suitable for all general purposes.

Length	Price
10 feet	$2.10
12 feet	2.52
14 feet	2.94
16 feet	3.36
18 feet	4.05
20 feet	4.50

SAND PAPER.

9-X-349. This is the very best quality of sand paper manufactured. The sand is sharp flint and applied to paper by special process. The glue is manufactured especially for the purpose. We guarantee it to be the best wearing sand paper manufactured.

The No. 00 is the finest and No. 3 is the coarsest. Put up 24 sheets to the quire, one number only. Assorted quires take the sheet price.

Numbers	00	0	½	1	1½	2	3
Price per 24 sheets	27c	28c	29c	30c	36c	39c	45c
Six sheets for	9c	9c	9c	9c	10c	12c	13c

XXX QUALITY EMERY CLOTH.

9-X-351. Made on heavy twilled cloth back and covered with the best quality of **Turkish emery.** The best wearing emery cloth possible to produce.

Numbers	00	0	½	1	1½	2
Price 24 Sheets	$1.60	$1.62	$1.65	$1.67	$1.80	$2.00
3 sheets for	.45	.45	.45	.45	.50	.55

STEEL WOOL AND SHAVINGS.

9-X-352. Steel wool unexcelled for household uses—cleaning and polishing aluminum ware, kitchen utensils, etc. Special package.... **12c**

9-X-353. Steel wool is made of fine fibers of steel, resembling curled hairs, and is used as a substitute for sand paper, emery and pumice stone. When used for rubbing down fillers and varnishes, it will be found superior to sand paper or pumice stone.

The steel shavings are coarse and are used for removing rust from iron preparatory to painting. It is also used for cleaning floors or any surface that has been previously varnished.

No. 0. Very fine. Price per lb.....80c
No. 1. Fine. Price per lb.....63c
No. 3. Medium. Price per lb.....45c
Steel Shavings. Price per lb.....44c

PUTTY SPECIALLY ADAPTED FOR PAINTERS' AND FURNITURE MANUFACTURERS' USE. Guaranteed strictly pure. Will not crumble or crack.

9-X-1107.
Price, 20 Pound Cans....$0.95
Price, 10 Pound Cans.... .55
Price, 4 Pound Cans.... .42

ZINC GLAZIERS' POINTS.

For fastening glass in sash. BE SURE AND STATE SIZE WANTED.

9-X-1111. Price, ¼-Pound Paper....13c

PAINTERS' COMBINED TRESTLES AND STEP LADDER.

9-X-1229. MADE OF CLEAR PINE STRONGLY CONSTRUCTED AND WELL BRACED. Arranged so that plank may be put on either **step.** Steps are iron braced in front and back.

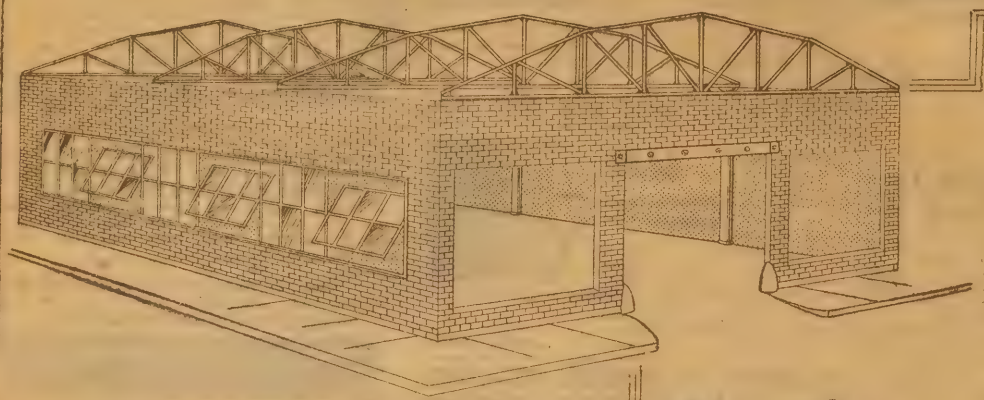
Height	Price
5 feet	$1.80
6 feet	2.15
8 feet	2.85
10 feet	3.60

SUPERIOR STEP LADDERS

9-X-1241. MADE OF CLEAR PINE. Rods under every step. Steel leg spreaders. A strong, safe ladder, fitted with pail shelf, which can be readily folded up out of the way when not in use.

Height	Feet 5	Feet 6	Feet 8
Price Each	$2.05	$2.45	$3.25

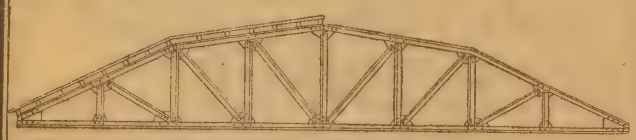
Structural Steel Work of All Kinds



Garages *and* Steel Buildings *of* Every Kind

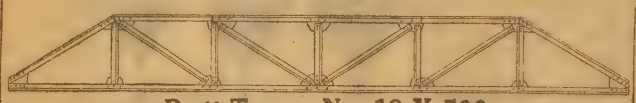
For the man who intends to erect a machine shop, public garage, pattern shop, or small storage building, we have one of the finest propositions obtainable in the country. We are constantly securing steel framework that is necessary in buildings of the types mentioned above in our big purchases throughout the country. A great portion of the steel is new, some of it coming from big industrial plants which we have dismantled.

We also have a large fabricating plant in Chicago where we make up new trusses, lintels and steel shapes **to your exact** plan.



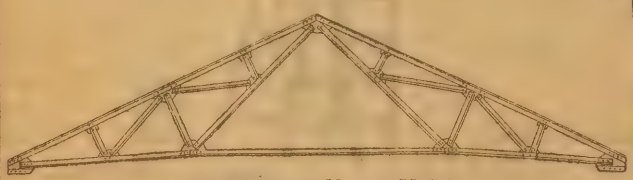
Crescent Truss—No. 18-X 501

Truss illustrated above is one of the designs we are equipped to fabricate most economically. When writing for prices, be sure to state extreme width of your building, length of your building, height of truss and kind of roofing you intend to use.



Pratt Truss—No. 18-X 500

We also fabricate the Pratt truss as illustrated above. This style truss can be made heavy enough to carry a highway bridge. Send us extreme width of building or bridge; state width of roadway and load to be carried if you are building a bridge; give as much information as possible so that we may quote at once.



Fink Truss—No. 18-X 503

The Fink truss illustrated above is the most popular style for small buildings. We usually have a number of this style truss in stock and can fabricate to any dimension. Tell us the width and length of building, height of the truss and kind of roofing you intend to use.

New Structural Shapes

Last year we placed an order for an enormous tonnage of new steel for delivery in 1920. All steel prices have advanced considerably since we placed our order, but we intend to sell steel this year to our customers at a big saving. We foresaw conditions in the steel industry and decided to protect our customers from high prices in 1920 in brand new "I" beams, channels, angles, girders, rails, plates and other steel products.

Whether you need one piece or one thousand ton of structural shapes, get our prices before buying elsewhere. We can make prompt shipment and save you money.

Build Now! Prices will be Higher!

We do not look for any lower prices within the next two or three years, and advise all our customers who are thinking of building to place their orders for material as soon as possible. If you have had plans drawn up, send us copy for an estimate; if you have no plans drawn, send us a rough pencil sketch of your proposed building, giving us as much information concerning it as possible, and we will be glad to quote you on all materials we can furnish.

We have a corps of engineers who can make suggestions to you concerning your plans, which are bound to save you considerable expense.

FREE ESTIMATES

We gladly furnish estimates. Our business has grown to such large proportions that we have found it necessary to maintain at all times a force of estimators. These men are at your service and will assist you in every way. They will tell you how to complete most work for least money.

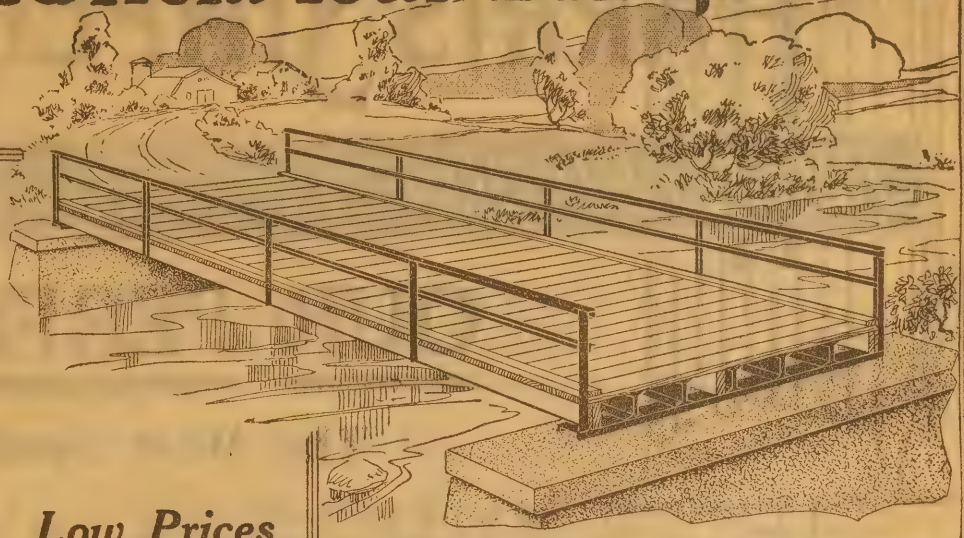
Angle **Rail** **"I" Beam** **Channel**

When making up lists of structural shapes for our estimate, if you are unfamiliar with this class of material show a sketch of the shape like those shown above and mark the dimensions on your pencil drawing; also give us length required.

Our new special steel catalog will give you all details concerning steel shapes. If you have not already received a copy, write us for it.

Cream Separators? See the big snaps in this book

Fabricated From Your Blueprints



Bridges *and* Steel Fabricating *of* Every Size

Quick Delivery Low Prices

The demand for our steel, which has been in previous service, has become so great in the past few years that we have decided to handle in addition to used steel enormous tonnage of new steel direct from the mills and consequently have placed last year big order for delivery in 1920. We will be able to furnish almost every structural shape from our new stock in Chicago at big saving. However, we still intend to handle steel, which has been in previous service, and will be able to quote you on used structural shapes in almost any quantity that you will require.

When we dismantle great industrial plants throughout the country, there is always a large amount of structural steel shipped into our Chicago plant, and, to the man who cares to use this kind of material we offer great opportunity to save money.

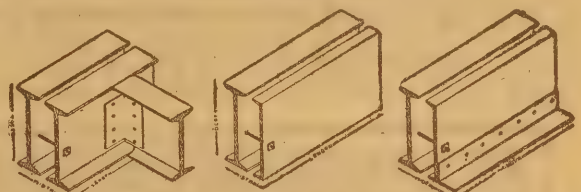
We guarantee every piece of used steel we ship to be exactly as represented and in our opinion to be suitable for the purpose for which it is to be used. If you order used material from us and are disappointed with it when it arrives, you have the option of returning the material to us at our expense and will receive your money back in full.

SEND US YOUR ROUGH SKETCHES

State whether you want us to figure on using new steel or steel which has been in previous service.

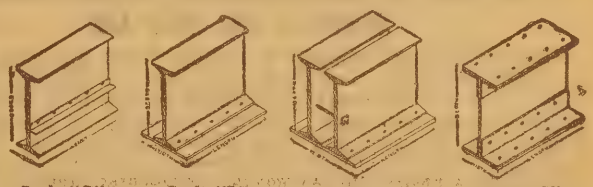
Any sketch or rough drawing of the building or structure you are figuring upon will do. State sizes clearly and our engineers will promptly figure your work and inform you.

We fabricate "I" beam bridges as shown above and are prepared to make prompt shipment. Send us sketches and information concerning the length of the span and width of the roadway, the greatest load that is ever likely to be put on the bridge and we will promptly quote you our prices for all material required cut to proper length, or fitted and punched ready to bolt together.



Style "K" Style "L" Style "M"

The above illustration will give you some idea of the fabricating work completed in our structural steel shop. We are equipped to turn out any fabricating job quickly.



Style "O" Style "P" Style "V" Style "S"

In ordering girders and lintels send us a rough pencil sketch and show all dimensions clearly.

Style "E"

The style "E" girder represented above shows the ornaments termed rosettes and beam blocks sometimes used when a beam is laid in a brick wall. This style girder is sometimes used as a lintel to carry the brick over store front or large doors or windows, and consists of two "I" beams with bolts and separators.

When ordering this style simply state style "E" girder and give us length of "I" beams, width of the girder from outside to outside and width required.

CONCRETE REINFORCING MATERIAL

In addition to handling new concrete reinforcing bars, we have made up separate department for handling used concrete reinforcing material.

The stocks in this department include twisted and plain bars, light steel rail, girder rail, steel cable, crimped wire, special obsolete shapes, corrugated arched sheets and other miscellaneous material. Most of this material comes to us in our purchase of big industrial plants and we claim a man who is going to put in some concrete work can save large sums of money by using some of this material instead of buying new concrete bars. **STEEL PRODUCTS OF ALL KINDS**

Our business is so vast and varied that we are constantly receiving steel products of so many different kinds that we are unable to list them in any catalog.

It is possible that you may be considering the purchase of a steel tool or implement, which we may have in stock, but do not show in any catalog. We advise that you send us your inquiries on any material you do not find listed in our catalog. It is very likely that we may be able to quote price which will save you from 30 to 50 per cent.

HARRIS SIMPLIFIED

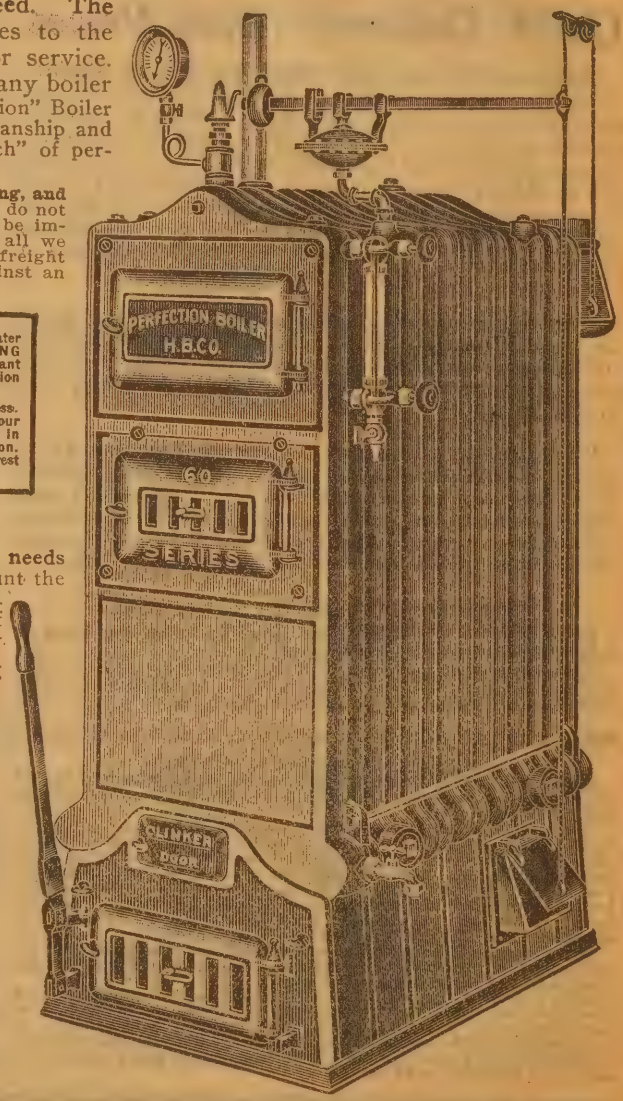
INSTALLED QUICKLY AND ECONOMICALLY

OUR PERFECTION

The Best Sectional Home

EFFICIENCY and service guaranteed. The name "Perfection" not only applies to the Trade Name of our boiler, but for service. We back these boilers with our entire capital against any boiler on the market, with the absolute assurance that the "Perfection" Boiler represents the highest grade of efficiency in design, workmanship and material that can be made. They represent the "Top-Notch" of perfection in practical house heating boilers.

For over twenty years we have been experimenting and improving, and this boiler now stands as perfect as it is possible to make it. We do not know of one point that has been overlooked or where it could be improved. An absolute guarantee is given that these boilers are all we claim them to be, or will refund your money in full, plus the freight charges you paid. Our name on these boilers protects you against an inferior article.



We are the originators of selling direct to the consumer complete Hot Water and Steam Heating Plants. With the aid of our FREE EXPERT ENGINEERING SERVICE, any man with ordinary intelligence can install a modern heating plant in any home, new or old, and thereby eliminate much of the unnecessary installation expense, which increases the big saving already represented in our prices.

That our ideas are correct is evidenced by our enormously increasing business. From ocean to ocean and from the uppermost points in Canada to the South, our heating plants have been installed with absolute success. We have been engaged in selling Modern Heating Plants for 20 years. Write us for heating information. Give us the general facts concerning your particular proposition. We'll do the rest and surprise you with the simplicity of our methods.

SIMPLE TO SET UP

These boilers are shipped in sections fitted together. It needs no expert to set up. You simply assemble the base and mount the boiler. Put on the doors and trimmings and it is finished. Experience not necessary. Anyone can easily set up one of these boilers in two hours' time, without any trouble. Easy to handle. Will go through the narrowest basement doorway.

Cast Iron is Perfection. Do not let the manufacturers of other boilers influence you with statements that Cast Iron Boilers will crack, that the Nipples that connect the sections will rust out. This is done simply to sell other boilers. The public demand for hot water boilers has finally come to the Square Sectional Boiler. On account of the great results that have come from their universal use, the demand for Cast Iron Boilers is becoming greater every day and the public have come to the final conclusion that for Efficiency and Economy they are the best. It has been demonstrated by actual use between a Cast Iron and a Steel Boiler, each operating individual plants, that the Steel Boiler would rust and corrode as steel is a substance to which foreign matter will adhere; the same thickness of cast iron as steel will outwear the Steel four times, under ordinary conditions and more especially under the severe conditions which are met in a Heating Boiler.

OUR BINDING GUARANTEE

Fully protects you regarding all material contained in your heating system, which is also considered an important feature All boilers and radiators are thoroughly tested before leaving our plant.

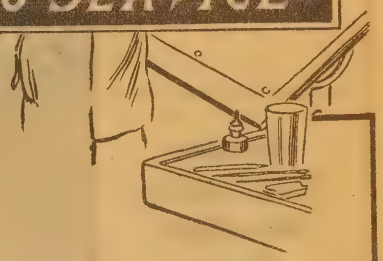
Send us a rough sketch of your building and our expert Engineers will figure your plant for you. Write for "Cold Weather Comforts," the best heating catalog published. Wonderful bargains in modern, up-to-date Heating Plants.

A Trial Order Will Convince You—Order Today

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

SYSTEMS of HEATING

WITH THE AID OF OUR EXPERT ENGINEERING SERVICE



CAST IRON BOILER

Heating Boiler in the World

$43.00

THE HIGHEST AMOUNT OF EFFICIENCY ATTAINED WITH CAST IRON BOILERS

Some manufacturers recommend the use of a steel boiler. This might apply to a boiler for power purposes that will have to stand an unlimited amount of pressure, 200 or 300 pounds; but for house heating purposes, cast iron is certainly the proper material to use, for the pressure will, at the most, not exceed 10 pounds.

When ordering, consider the decided advantages, durability, efficiency, design, etc., which are featured in our "Perfection" Boiler.

ANY KIND OF COAL USED IN PERFECTION BOILER

It does not matter what kind of coal you use in these boilers, either hard or soft. The great advantage which these boilers have as a soft coal burner lies in the simplicity of cleaning. The entire cleaning of the flues is done from the front of the boiler, by opening the clean-out door and running the flue brush through each opening two or three times, making a thorough cleaning in the most efficient manner. The boiler should be cleaned as often as possible when using soft coal. The simplicity of the flue arrangement makes it very easy to clean them.

Your particular attention is called to the entire firepot, surrounded by water. The cold water being supplied to the bottom of the boiler gradually becomes heated, rises to the top and is taken off with proper arrangements of piping to supply the various radiators.

ROCKING GRATES

Every grate bar in our boilers is mounted on an axis and connects with a common connecting bar underneath. This connecting bar is attached to a lever located at the side of the boiler, and by operating this lever every grate bar in the entire boiler can be made to rock, and the top of the grate surface on which the fire bed rests is converted into a veritable grinding machine when these grates are being shaken, and it only takes very little shaking of the grates to get all of the surplus ashes out of the fire bed and get the fire going with a bright red heat through the entire grate surface of the boiler. These grates positively prevent any dead corners in these boilers, as any ashes that might collect in these corners will always find its way down, and once it reaches these grinding grates it is bound to be discharged into the ash box.

No heating proposition is too large for us; whether you have a home, restaurant, hotel, club-house, factory, green-house, brooder, theatre or any other kind of building to heat, we are ready to give you the benefit of our many years of actual heating experience.

Just a Few Voluntary Testimonials

Save One Hundred Dollars

Sioux City, Iowa.

Harris Bros. Co., Chicago, Ill.

Dear Sirs: After giving our heating plant a good test in 20 below zero weather, wish to tell you it works simply fine. We don't think we use any more coal than we did in our two stoves, and heat every room. We have figured that we saved One Hundred Dollars by getting the plant direct from you. If you have any prospective buyers in this locality, you need not hesitate to refer them to us.

Wishing you a prosperous New Year, yours respectfully,

W. M. Ruth, 1822 Ingleside Ave.

Inspection Invited

Chicago House Wrecking Co., Chicago, Ill.

Gentlemen: It is with great pride and satisfaction that I write this letter to the firm.

I bought a steam heating plant of you on Sept. 10th and I wish you to know that I am perfectly satisfied with it in every way. I got a No. 162 boiler and 17 radiators with a capacity of 518 ft. and all piping and asbestos covering for a sum of less than $340. I am proud of this outfit and I know there is not a better or more economical heating plant in the city of Chicago. I consider your engineers the best in figuring on what radiation a man will need in a building. I had estimates from several other firms but none of them figured as liberal radiators as did your engineers, and still your bid was the best, not the lowest.

If anyone is in doubt about your material, send them over to look at my plant, or let them write to me and I will most cheerfully answer their letters.

I am unable to find words to express my entire satisfaction with the system you sold me. It saved me exactly $350.00. Allow me to remark that your drawings are so simple and complete that no man who has any brains can go wrong. It took me just 17 evenings from the time I commenced putting up plant till I was done and had steam on boiler. Very respectfully,

John M. Larson, 4350 Belmont Ave.

Read What Satisfied Users Say

Their Plant Sold Three More

Adrian, Mich.

Harris Bros. Co., Chicago, Ill.

Dear Sirs: As I just finished connecting up and started one of your 900 ft. Hot Water Plants, I thought I would write you in regard to it as I have surprised everybody as to the temperature of water that I can get without boiling. And this afternoon I ran the thermometer up to 235° without boiling. The same I can prove by three parties that are thinking of installing plants next season. The plant works like a bird and they are very much pleased with it. Will help you all I can. Yours,

Thomas Earl, 13 West Beecher St.

Proved Satisfactory

Dayton, Ohio.

Harris Brothers Co., Chicago, Ill.

Gentlemen: The hot water plant ordered from you and started November last is proving very satisfactory and we are so much pleased with it and also pleased the way the Harris Brothers do business. Everything was carried out according to contract and if you want to deal with a Company that is prompt, deal with this one.

We are burning soft coal and find it will do the work if you have a good draft. These heaters can be installed by anyone, as everything is shown so plain with instructions that you can't make a mistake. We have a six room house and we saved $75 in this plant.

W. R. Mitzner, 409 Hughes St.

No Shortage of Material

Logansport, Ind.

Harris Bros., Chicago, Ill.

Dear Sirs: The hot water heating plant purchased a few months ago was received complete in every respect. There was no shortage in material. As I have had some experience in heating, it was very easy for me to install. It took me five mornings to run all the pipe and connect up the radiators.

I think I have saved $100.00 on this plant. The tools you sent me are in good shape and as I have no more use for them I would like to know if I can return them and what you will charge me for the use of them. Yours very truly,

Arthur B. Cassube, 931 20th St.

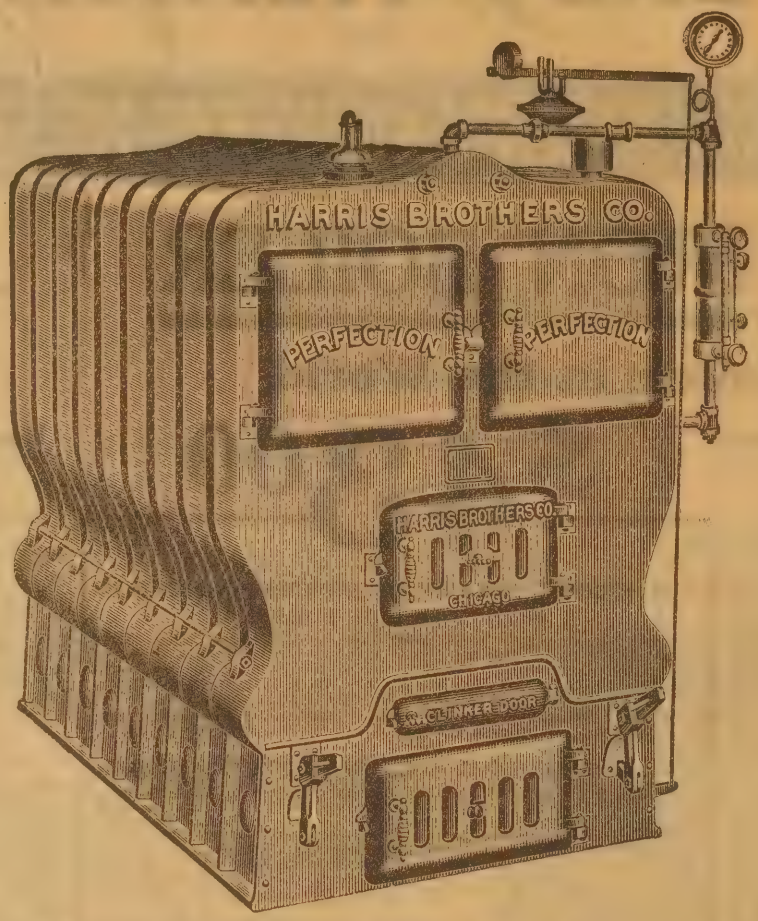
PRICES AND DIMENSIONS OF OUR PERFECTION CAST-IRON BOILERS.

Number	Size of Firepot	Size of Smoke Pipe	Floor Space, Including Smoke Box	Tappings at Flow and Return	Height to Water Line (In Steam Boiler)	Direct Water Radiation	Direct Steam Radiation	Shipping Weight in Lbs.	
17-X-64	13x12	7	22x20	2-2	38½	300	150	590	Prices on Application
17-X-65	13x15	7	22x24	2-2	38½	400	225	675	
17-X-66	13x18	7	22x28	2-2	38½	525	300	835	
17-X-67	13x21	7	22x32	3-2	38½	625	375	915	
17-X-175	17x17	9	27x28	2-2½	48	750	475	941	
17-X-176	17x21½	9	27x32	2-2½	48	925	550	1123	
17-X-177	17x26½	9	27x36	3-2½	48	1100	650	1305	
17-X-178	17x30	9	27x40	3-2½	48	1300	750	1487	

Above prices are all F. O. B. our factory in Eastern New York. We will quote Freight Prepaid or F. O. B. Chicago prices on request.

Cast Iron Sectional Boilers for

The Most Conveniently Installed Easily Operated Steam and Hot Water Boilers Made



"Perfection" Boilers Are the Perfected Product of an Acknowledged Authority

Perfection steam and hot water boilers as they are offered to you today will be the perfected result of more than fifty years' practical experience. They are the product of one of America's leading heating apparatus manufacturers and are completely built in a large, splendidly-equipped plant under the supervision of acknowledged experts. Perfection boilers are designed particularly for use in large heating work. They are conveniently installed; being sectional, they are built up together—no additional expense for elaborate brick work. The ease with which Perfection boilers are operated with greatest efficiency—their ability to heat quickly, steadily and powerfully with utmost fuel economy—are advantages that you will appreciate.

Highly Perfected to the Last Detail

In constructing our Perfection Boilers, particular attention is given to the maintenance of a proper ratio of the grate to the boiler surface. This and other important features of design, construction and finish to the last detail have made Perfection Boilers more efficient than any other cast iron sectional boiler on the market. They are made of finest cast iron, all parts being accurately machined and fitted; sections tested to 100 lbs., hydrostatic pressure.

Efficiency Proved Under Test

For large hot water heating plants or low pressure steam heating plants, these cast iron sectional boilers have proved themselves far superior to any other boiler on the market. If you intend to install a heating system in a large apartment building, hotel, school building, church, residence or any large building where you intend to have the heating system last as long as the building, a Perfection Boiler should be your choice.

Made in Unit or Sectional Style

Perfection steam and hot water heating boilers are made on the unit or sectional principle. Their capacity can be increased or diminished by adding or taking from the sections. Should the building in which you install a Perfection Boiler be enlarged at any time, if the boiler is in use, it is easy to increase the heating capacity by simply adding a sufficient number of sections to meet the requirements.

Improved Push Nipple Connections

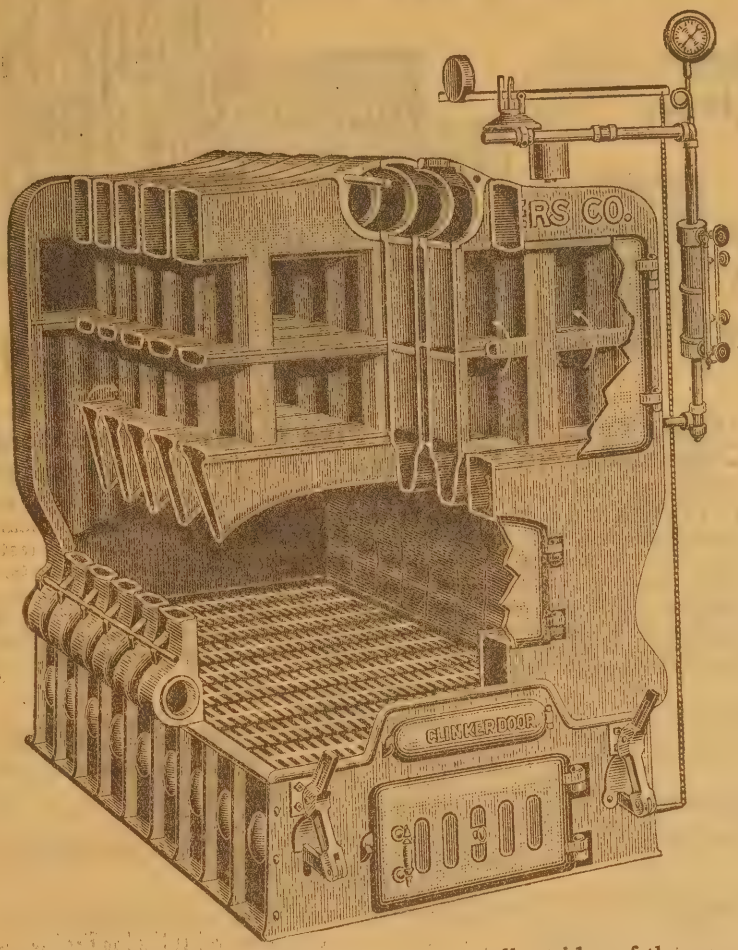
Perfection steam and hot water boilers are made with improved push nipple type for joining the sections. This connection consists of heavy machine turned smooth tapered nipples made of cast iron and held together by heavy tie rods. These connections are so arranged that they are not exposed to the action of the fire and are unaffected by expansion or contraction of the sections; tight permanent joints at all times. These connections enable us to design Perfection Boilers with low broad proportions.

Let Us Estimate Your Heating Plant!!

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Large Steam and Hot Water Plants

Deep Combustion Chamber and Greatest Possible Amount of Heating Surface



Long Travel of Smoke and Gases Utilizes All Heat Insuring Greatest Fuel Economy

A glance at the sectional view above will give you an excellent idea of the superiority of Perfection Boilers over all other boilers of this type. Note especially the deep combustion chamber and the enormous amount of heating surface pressed to the action of the fire. This feature, combined with the long travel of gases, utilizes all of the effective heating units, giving efficiency with the most economical consumption of fuel. This also insures an immediate response to the action of the fire and quick heat to all parts of your building. All boiler ratings stated below are conservatively made according to accepted standards and are derived from gas in exhaustive tests which perfected their safety. They are based on a standard of 2 lbs. pressure maintained in the boiler for steam and 180 degrees for hot water. Perfection boilers are perfectly adapted for soft coal burning. If you intend to use soft coal, select your boiler in one size larger than would be required for hard coal.

Quickly and Easily Cleaned

Perfection boilers are equipped with a large front and rear clean-out door, which gives you free and easy access to every part of the fire surface. This permits a thorough cleaning of all interior parts of the boiler. In order to obtain efficiency and greatest power of economy, these surfaces should be kept clean at all times.

Splendid Grate Arrangement

Notice especially the grate arrangement. The grate bars are divided into two sections, each operated by a separate lever which enables you to agitate the entire body of the fire or only half of it as the occasion requires. By removing the front panel of the ash pit, the entire grate frame can be withdrawn. This gives you free access to every part of the grate.

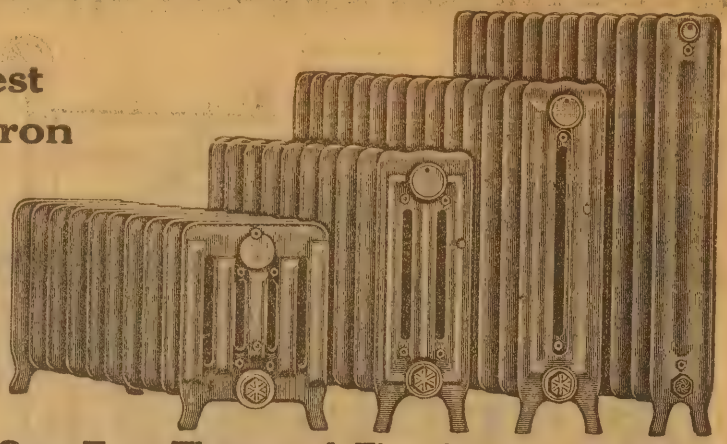
Prices and Specifications of Perfection Boilers

Number	Size of Grate, Inches	Area of Grate, Sq. Feet	Hot Water Rating Sq. Feet	Steam Rating, Sq. Feet	
17-X-224	22x20	3.35	1,075	650	Prices on Application
17-X-225	22x26 3/8	4.03	1,400	850	
17-X-226	22x32 3/4	5.00	1,725	1,060	
17-X-227	22x39 1/8	5.98	2,050	1,250	
17-X-228	22x45 1/2	7.00	2,400	1,450	
17-X-284	28x24 3/4	4.82	1,975	1,200	
17-X-285	28x33 1/8	6.45	2,625	1,600	
17-X-286	28x41 1/2	8.07	3,300	2,000	
17-X-287	28x49 1/2	9.70	3,950	2,400	
17-X-288	28x58 1/4	11.32	4,600	2,800	
17-X-289	28x66 5/8	12.96	5,275	3,200	

Steam and Hot Water Radiators

Made of Best Gray Cast Iron

Thoroughly Tested and Guaranteed



Smooth Plain Colonial Design

Easy to Paint and Easy to Clean

One, Two, Three and Five Column Radiators

These Colonial Pattern Radiators are of a very simple design and are becoming more and more popular. This can be easily understood when you note their beauty of design and consider with what ease they may be kept clean and sanitary. They are exceptionally well made. Each section is tested separately and tested a second time when the radiator is completely assembled. These rigid inspections and tests are for your protection. They eliminate entirely any chance of shipping defective material.

The prices quoted are F. O. B. cars our factory located in Western New York. For the convenience of our customers a large stock of radiators is carried in Chicago. When we ship from our Chicago warehouse, an advance of one cent per foot is made to cover freight charges. Include this amount when ordering radiators shipped from Chicago.

SINGLE COLUMN RADIATORS
No. 17-X-5300

For use in hallways or passageways where narrow radiator is required; can also be used as wall radiators.

	Number of Sections	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Price Per Square Foot One Column Radiation: Hot Water	Steam
Square Feet of Heating Surface	38 Inch Height, 3 Sq. Feet, Per Section	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	Prices on Application	
	18 Inch Height, 1½ Sq. Feet, Per Section	3	4½	6	7½	9	10½	12	13½	15	16½	18	19½	21	22½	24	25½	27	28½	30		

TWO-COLUMN RADIATORS
No. 17-X-5305

For general use, when preferred instead of standard 3 column.

	Number of Sections	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	18	20	Price Per Square Foot Two Column Radiation: Hot Water	Steam
Square Feet of Heating Surface	38 Inch Height, 4 Sq. Feet, Per Section	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	Prices on Application	
	26 Inch Height, 2⅔ Sq. Feet, Per Section	5⅓	8	10⅔	13⅓	16	18⅔	21⅓	24	26⅔	29⅓	32	34⅔	37⅓	40	42⅔	45⅓	48	50⅔	53⅓		
	20 Inch Height, 2 Sq. Feet, Per Section	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40		

THREE-COLUMN RADIATORS
No. 17-X-5310

Recognized as standard for general heating purposes.

	Number of Sections	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Price Per Square Foot Three Column Radiation: Hot Water	Steam
Square Feet of Heating Surface	38 Inch Height, 5 Sq. Feet, Per Section	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	Prices on Application	
	26 Inch Height, 4⅔ Sq. Feet, Per Section	7½	11¼	15	18¾	22½	26¼	30	33¾	37½	41¼	45	48¾	52½	56¼	60	63¾	67½	71¼	75		
	20 Inch Height, 2⅔ Sq. Feet, Per Section	5½	8¼	11	13¾	16½	19¼	22	24¾	27½	30¼	33	35¾	38½	41¼	44	46¾	49½	52¼	55		

FIVE-COLUMN RADIATORS
No. 17-X-5315

Window radiators. For use under windows or wherever a low radiator is desirable.

	Number of Sections	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Price Per Square Foot Five Column Radiation: Hot Water	Steam
Square Feet of Heating Surface	22 Inch Height, 6 Sq. Feet, Per Section	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	Prices on Application	
	18 Inch Height, 5 Sq. Feet, Per Section	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100		
	14 Inch Height, 4 Sq. Feet, Per Section	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80		

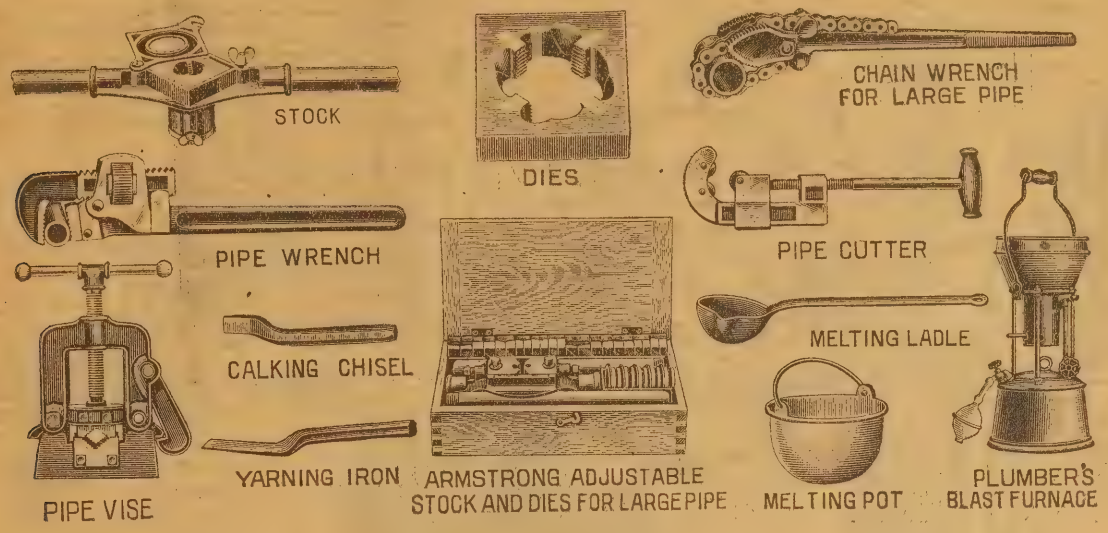
Made with Standard Tapping as Follows:

Radiators containing 26 ft. or under..... ¾ in.
Radiators containing more than 26 ft. (not exceeding 50 ft.) ..... 1 in.
Radiators above 50 ft. but not exceeding 90 feet..... 1¼ in.
Radiators containing above 90 feet..... 1½ in.

Have You Carefully Considered Our Low Prices on Pipe?

We Furnish All Necessary Tools!

INSTALL YOUR OWN PLUMBING and HEATING PLANT



The tool sets below have been carefully assembled to give our customers a complete equipment of best tools for the installation of Heating and Plumbing Systems. After you have decided upon the set you will need to complete your work, you will find by comparison that the low prices we are asking offer a substantial saving. The tools included in these outfits are of high grade quality and with ordinary care will give you long service. If you intend to return the tools selected after you have installed your Plumbing or Heating as outlined in the offers below, we urge you to avoid breakage, for we naturally cannot accept broken tools.

4-X-100. NEW TOOL SET

The following tools are all brand new and of finest quality. The capacity of these tools is such to install any of our Heating Plants where the No. 60 or 170 series boilers are specified. These tools are not returnable.

SET CONSISTS OF:

1 Pipe Vise for up to 2½ inch pipe
1 Stock and Dies for ¼ to 1 inch pipe, inclusive
1 Stock and Dies for 1¼, 1½ and 2 inch pipe, inclusive
1 14 inch Pipe Wrench, takes ½ to 1½ inch pipe
1 18 inch Pipe Wrench, takes ½ to 2 inch pipe
1 Pipe Cutter, cuts 1 inch to 2 inch pipe
1 Pipe Cutter, cuts ⅛ inch to 1 inch pipe
1 Pipe Reamer

Special price on the above full set of new tools **$28.00**

4-X-100A. USED TOOL SET

We will furnish all of the tools mentioned in offer 4-W-100 above, all of them being of the same quality, excepting that they have been used. All tools are in good condition and guaranteed to give best service.

Price on the above set of used tools..... **$21.00**

4-X-100B. If you intend to use the above tools only while you are installing your Heating Plant, send us..**$21.00**
Then, when you have completed the work, return these tools and we will hand you back.....**$18.90**
Making the cost to you for the use of these tools only.....**$2.10**

4-X-101. NEW TOOL SET

The following tools are all brand new and of finest quality. The capacity of these tools is such to install any of our Heating Plants where the Nos. 160 and 170 series boilers are specified. These tools are not returnable.

SET CONSISTS OF:

1 Pipe Vise, takes ½ inch to 3 inch pipe
1 Stock and Dies, takes ¼ inch to 1 inch pipe
1 Stock and Dies, takes 1¼, 1½ and 2 inch pipe
1 Stock and Adjustable Dies for 2½ and 3 inch pipe
1 14 inch Pipe Wrench for ¼ to 1½ inch pipe
1 18 inch Pipe Wrench for ½ to 2 inch pipe
1 27 inch Chain Wrenches for 1¼ to 3 inch pipe
1 Pipe Cutter, cuts ⅛ inch to 1 inch pipe
1 Pipe Cutter, cuts 1 inch to 2 inch pipe
1 Pipe Cutter, cuts 2 inch to 3 inch pipe
1 Pipe Reamer

Special price on the above full set of new tools **$68.00**

4-X-101A. USED TOOL SET

We will furnish all of the tools mentioned in offer 4-X-101 above, all of them being of the same quality, excepting that they have been used. All tools are in good condition and guaranteed to give best service. **$51.00**

Price on the above set of used tools.....

4-X-101B. If you intend to use the above tools only while you are installing your Heating Plant, send us..**$51.00**
Then, when you have completed the work, return these tools and we will hand you back.....**$45.90**
Making the cost to you for the use of these tools only.....**$5.10**

4-X-102. NEW TOOL SET

These tools are all brand new and strictly high grade. They are of sufficient capacity to install any medium size Plumbing outfit or Heating Plant. They are not returnable.

SET CONSISTS OF:

1 Pipe Vise for up to 2½ inch pipe
1 Stock and Dies for ¼ to 1 inch pipe, inclusive
1 Stock and Dies for 1¼, 1½ and 2 inch pipe, inclusive
1 24 inch Pipe Wrench, takes ½ to 1½ inch pipe
1 18 inch Pipe Wrench, takes ½ to 2 inch pipe
1 Pipe Cutter, cuts 1 inch to 2 inch pipe
1 Pipe Reamer
1 Melting Pot
1 Plumber's blast furnace
1 Melting Ladle
1 Calking Chisel
1 Yarning Iron

Special price on the above full set of new tools **$35.00**

4-X-102A. USED TOOL SET

We will furnish all of the tools mentioned in offer 4-W-102 above, all of them being of the same quality, excepting that they have been used. All tools are in good condition and guaranteed to give best service. **$26.25**

Price on the above set of used tools.....

4-X-102B. If you intend to use the above tools only while you are installing your Heating Plant, send us..**$26.25**
Then, when you have completed the work, return these tools and we will hand you back.....**$23.63**
Making the cost to you for the use of these tools only.....**$2.62**

$25.45 SUPERIOR TANK HEATER

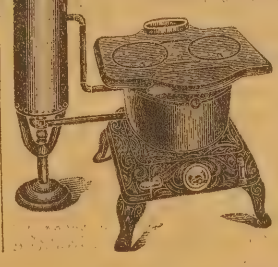
The accompanying illustration shows our Superior Cast Iron Tank Heater, which is without any question one of the most efficient little water heaters on the market at the present time. **The deep fire pot** is a special feature of this heater and permits you to carry a long steady fire for hours at a time, without any attention whatever. By a careful adjustment of the draughts you can set this heater so that you will not have to look after it oftener than once in twelve hours, and you can keep it going winter and summer, supplying you with hot water the year around with very little attention.

DIMENSIONS AND PRICES OF HEATERS

No.	Size of Fire Pot.	Depth of Fire Pot.	Size of Smoke Pipe.	Tank Capacity, Gallons	Hot Water Rad. Supplied.	Price
17-X-634	10	12	6 in.	100	75 ft.	$25.45
17-X-636	10	14	6 in.	125	100 ft.	31.00
17-X-637	13	11	7 in.	150	120 ft.	33.00
17-X-638	13	15	7 in.	200	160 ft.	39.75
17-X-639	13	19	7 in.	250	190 ft.	42.65

SPLENDID LAUNDRY STOVE

With Hollow Water Heating Fire Pot, the Ideal Laundry Stove, Very Efficient and Economical, Heats 200 Gallons of Water Per Hour



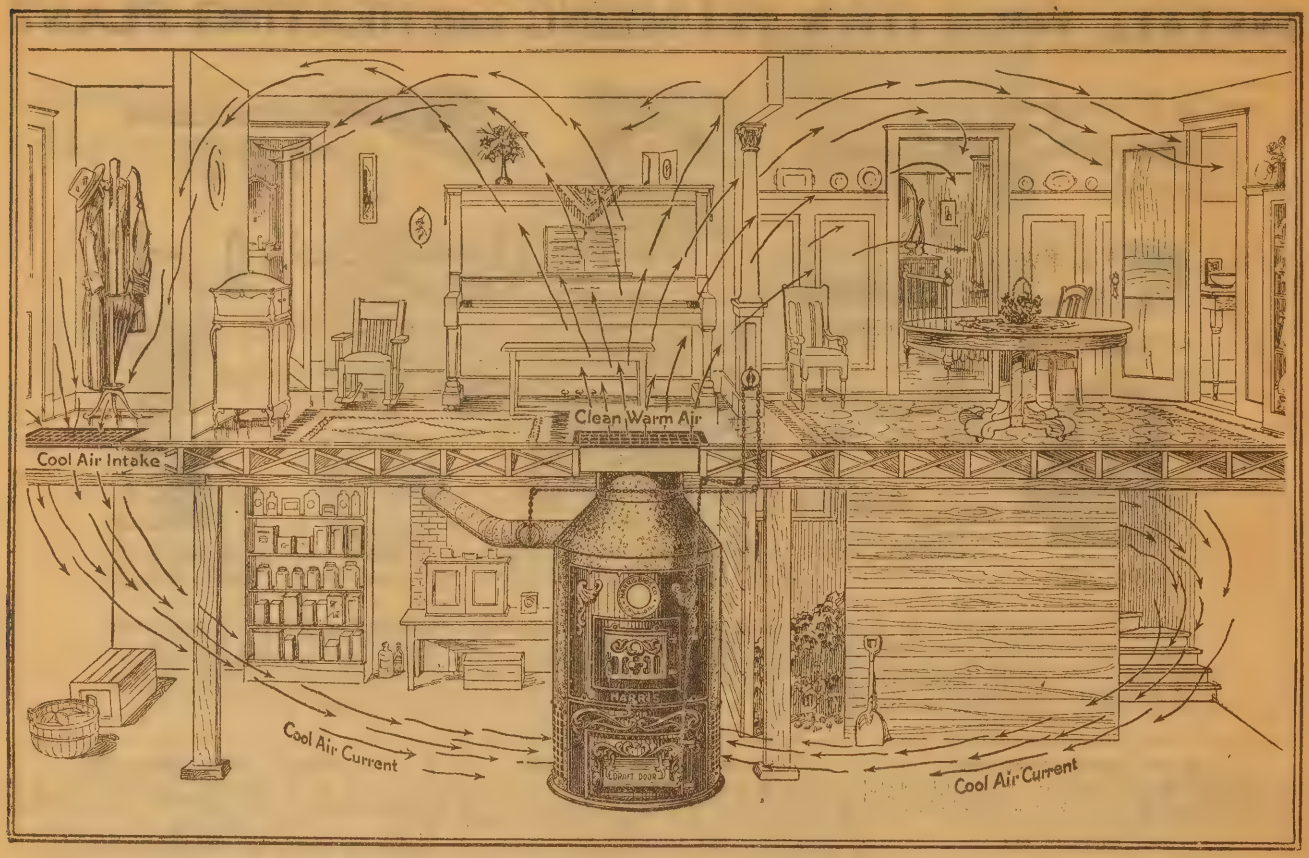
All stoves are tapped and ready for attachment to pressure boiler or tank for 1 in. pipe. Tested to a pressure of 125 lbs. Inside diameter of fire pot 11¾ in.; outside diameter of fire pot, 13¼ in.; hollow space in fire pot, ⅞ in.

The Ideal laundry stove is placed before you in this money-saving opportunity. Strongly made throughout of smooth finished gray iron castings. Large substantial base. Every inch of the fire pot is utilized as heating surface for the water. The water circulating around the entire fire pot is rapidly heated. The efficiency of this stove is clearly shown in its ability to heat 200 gallons of water per hour.

Lot No. 17-X-102. 4 hole stove as above. 4, 8-in. lids. Size of top 25 in. wide; 22 in. deep. Weight, 155 lbs. Each..... **$21.00**

Lot No. 17-X-204. 2 hole stove as above with 2, 9-in. lids. Weight 150 lbs. With pouch feed to put in fuel when top of stove is covered. Size of top, 20 in. wide; 22 in. deep Each..... **$18.50**

Re-circulating Pipeless Furnace



A six room house, size 25x35 ft., comfortably heated with a Harris Pipeless Furnace costing $80.00

Even steady heat constantly circulating through every room —every nook and corner flooded with clean, warm air

The picture tells the story—within a few moments after the fire is started, an abundance of warm air, cleaned and moistened from the water pan, rises quickly through one large register. This action naturally causes the cold air at the floor to fall, in a steady flow, toward the cold air intakes, where it is drawn in, cleaned, moistened, heated and passed on to the living rooms. In this way a continuous circulation is automatically started through all the rooms in your home—reaching to the farthest corners. All rooms adjoining the room in which the register is placed are evenly heated within a short time by simply opening the doors leading to them.

How the re-circulating feature cuts your fuel bill

It must be clear to anyone that good circulation is positively necessary to heat all the rooms in your home with a Warm Air Pipeless Furnace of any kind. To simply supply heat through one register, in one room, with no provisions to keep the air circulating is not enough. The air rising from the furnace will retain its height and velocity while it is warm, but as it cools it begins to fall. Without the cool air intake register placed in the floor of the front hall, shown in the picture above, there would be no circulation and the warm air would cool and fall before reaching the other rooms.

The "Harris" re-circulating pipeless system, with its cool air intakes returning to the furnace, not only heats all of the rooms quickly and evenly to a comfortable degree of temperature in the coldest weather, but in re-circulating the partly warmed air from the rooms above, less heat is required, and naturally less fuel is needed to retain a steady, even heat, after the warm air is circulating. This continuous circulation of the air in all rooms mixing with the fresh air which is bound to come in any house through the doors and windows is a healthful advantage which cannot be overlooked.

Going to Paint? Our Paint Proposition Will Interest You!

HARRIS BROTHERS CO.
35th & Iron Streets, Chicago.

Heats all rooms through one register

Harris Warm Air Re-circulating Pipeless Furnaces cost but little more than an ordinary heating stove, and are much easier handled and installed when you consider that your heating stove must be put up and taken down every six months or so. Besides the substantial saving in their low first cost, they are the most compact heating systems offered today. There are no big cumbersome pipes to take up a room in your basement.

Only one big centrally located register to comfortably heat all the rooms in your home; giving you more space in your living room which otherwise would be taken up by the stove, radiators and unnecessary registers. The heat is under complete control at all times and easily regulated from the room directly above the furnace. Coal, ashes, gas, dust, dirt and smoke never reach your living rooms for the Harris Re-circulating Warm Air Pipeless Furnace places them in the basement where they belong.

Let our experienced engineers advise you which plant to install

Simply send us a rough sketch of the lay-out of rooms in your house, indicating the size of all rooms, height of ceilings, number and size of windows, and where you wish the furnace located. Our estimate will relieve you of all worry and responsibility. You can rest assured the plant we figure for you, including all the material for its installation, will heat your home satisfactorily, in all weather, with a substantial saving in fuel.

The diameter of the fire pot in a furnace does not in all cases determine its heating capacity. The supply of air to the surface, the depth and capacity of fire pot, must always be considered. Note especially the guaranteed heating capacities of the Harris Re-circulating Warm Air Pipeless Furnaces in the table below.

You can burn any kind of fuel —hard coal, soft coal, wood or coke.

Adjustable Throat. Fits any basement from 6 to 8 ft. high

Radiator clean-out plug

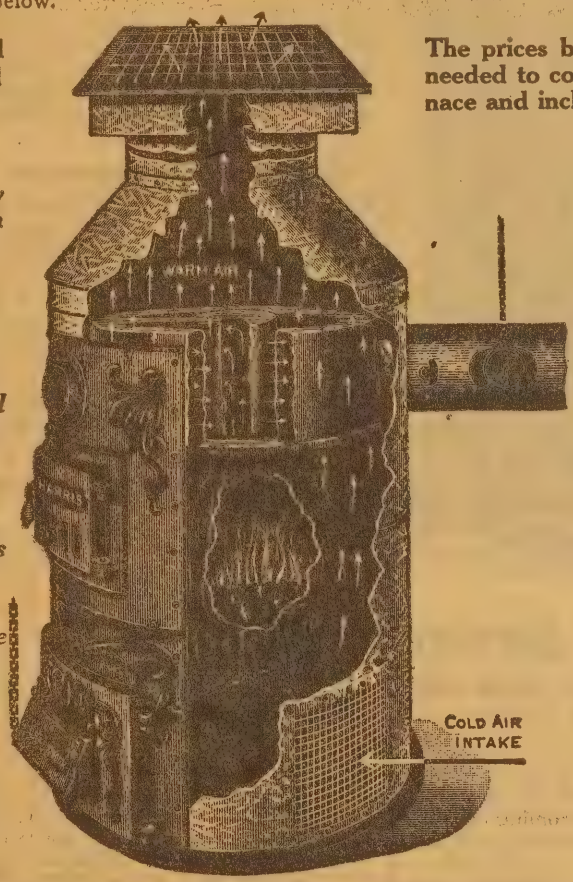
Tappings for hot water coil

Large feed door

Triangular revolving grates

Deep ashpit; no burnt grate bars

Our re-circulating feature insures an even temperature in all your rooms. Keeps your floors warm and cozy and saves enough in fuel to pay for the furnace in a short time.



The prices below are for every single item needed to correctly install your pipeless furnace and include cold air return register.

Draft and Damper controlled from living rooms

Cast Iron Reversible Radiator

Corrugated Sheet Iron Inner Casing. Asbestos lining, heavy galvanized outer casing.

Extra deep fire pot gives large heating capacity

Corrugated sectional fire pot, allowing for expansion and contraction

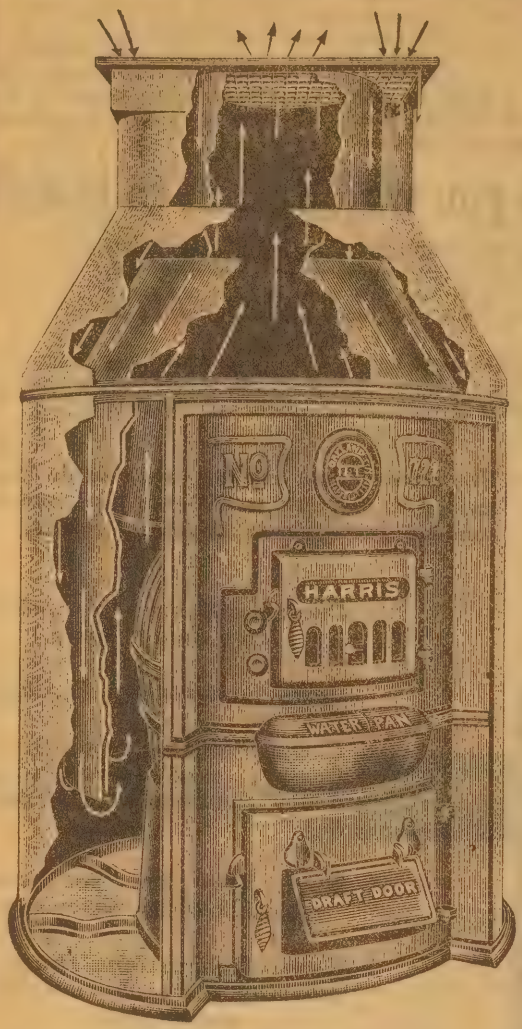
Large water pan cleans, purifies and moistens air

Installed in a few hours. Our complete instructions and blue prints make installation as simple and easy as setting up an ordinary heating stove.

PRICES AND SPECIFICATIONS

Furnace Number	17-X-620	17-X-622	17-X-624	17-X-626	17-X-628	17-X-630
Heating Cap., in cubic feet	13000	16000	23000	35000	47000	65000
Diam. of Casing, in inches	34	38	42	46	50	54
Height to Top of Casing, in in.	56	59	62	65	68	73
Height of Radiator, in inches	13	13	13	14	14	14
Diam. of Smoke Pipe, in inches	8	8	8	9	10	10
Size of Heating Register, in in.	18x24	20x26	22x28	28x28	28x36	36x36
Inside Diam. of Fire Pot, in in.	20	22	24	26	28	30
Shipping Weight, in pounds	790	915	1140	1365	1765	1950
Price, Complete	$95.00	$103.00	$140.00	$170.00	$210.00	$250.00

Re-Circulating Double Casing Pipeless Furnace



CLEAN WARM AIR **$125.00** EVEN STEADY HEAT

The "Harris" pipeless furnace has been carefully designed to embody all newest and best improvements, and as it is offered to you today it overcomes all the objectionable difficulties found in other makes. These furnaces present in themselves a complete heating system. They are ideal for the home, store, church, school and hall or for any building where the furnace can be placed in the basement near the center of the building. This furnace is designed to heat your entire building to an even temperature, distributing clean, warm air to every corner.

One Register System

The heated air rises through the center part of the register and circulates through doorways to all rooms, continuing to rise and travel while heated, then falling and returning to the furnace. In this way an almost perfect circulation is continually maintained.

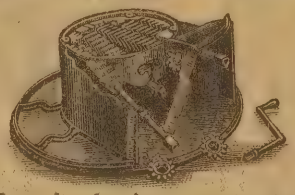
Efficient—Economical

These splendid pipeless furnaces have been successfully installed and are giving thorough satisfaction in every part of the country. The principle of continuous circulation of heated, clean air to every corner is not only healthful but economical. There will be no stagnant air chambers in your home. When the heated air leaves the furnace, after giving up its heat, it returns to the furnace through the outer rim of the register, where it is cleaned, moistened, removed and re-circulated through the heat register.

Large Register Face

Your special attention is directed to the extra large warm and cold air registers with which the "Harris" re-circulating double casing pipeless furnaces are equipped. This insures an abundance of cold air to the furnace, which is very essential to the complete success of a gravity system.

Best Triangular Grate



Here is the improved triangular grate with which these splendid furnaces are equipped. Any of the grate bars can be removed or replaced without disturbing the rest of the grate in a moment's time. There are no bolts or cotter pins to take out—no special tools necessary. The most practical and convenient grate devised.

Large Cast Radiator

A special feature of "Harris" re-circulating double casing pipeless furnaces will be found in the extra large all-cast radiators. The cross-section view above shows the fire traveling. Gases and smoke must pass around the entire circumference and give up most of their heat before reaching the chimney.

Built for Long Service

"Harris" re-circulating double casing pipeless furnaces are built to give lifelong service. Made entirely of cast iron with double casing made of heavy galvanized iron. The fire pot is made in two sections with deep corrugations. The triangular grate and all parts coming in direct contact with the fire are made of finest heavy cast iron. The ash pit is large and deep to prevent damage to the grate from accumulated ashes. Extra large door to ash pit and extra large fuel door. Large water pan. Cast iron parts are smooth and nicely finished. The galvanized casing is securely fitted and perfectly joined.

PRICES AND SPECIFICATIONS

No	Size Inside Casing	Size Outside Casing	Height of Furnace Complete	Register Size	Diameter Hot Air Pipe	Heat Capacity, Sq. Feet	Diameter Fire Pot	Size Smoke Pipe	Price
17-X-720.....	34 in.	42 in.	6 ft. 8 in.	30x34 in.	22 in.	13,000	20 in.	8 in.	$125.00
17-X-722.....	38 in.	46 in.	6 ft. 8 in.	34x34 in.	26 in.	15,000	22 in.	8 in.	150.00
17-X-724.....	42 in.	50 in.	6 ft. 8 in.	36x36 in.	28 in.	25,000	24 in.	8 in.	180.00
17-X-726.....	46 in.	54 in.	6 ft. 8 in.	40x40 in.	30 in.	40,000	26 in.	9 in.	215.00

Cream Separators? See the big values in this book

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Harris Great "Challenge" Warm Air Furnace

Improved Down Draft Furnace **$80.00** **Heavy Steel Radiator**

Designed to produce the most durable and best all-around low priced furnace on the market. Although simple in construction, it is strong and heavily built throughout and will give years of service with constant hard use. This furnace will burn any kind of fuel, soft coal, wood, coke or hard coal. Designed with large surface to radiate the maximum amount of heat from the combustion chamber. Carefully assembled and set up at our warehouse; all parts fit perfectly.

Base Plate. Made in one-piece of solid cast iron. Consists of the ash pit bottom and the outer base ring built for strength—heavy and durable.

Ash Pit. Made extra deep and roomy. Big enough to allow ashes to accumulate without danger of damaging or burning the grate.

Grates. These "Challenge" warm air furnaces are fitted with the improved triangular grate illustrated and described on the opposite page. A special feature of this grate enables you to remove any of the grate bars without disturbing the rest. Operated with a shaker handle. Quickly and easily cleared of all ashes with a few turns.

Fire Pot. The fire pot in these furnaces is cast in two heavy sections and is made in this way to allow for contraction and expansion at the center joint. The two sections of the fire pot fitted together in such a way that gas cannot escape. Entire fire pot deeply corrugated to give additional radiating surface.

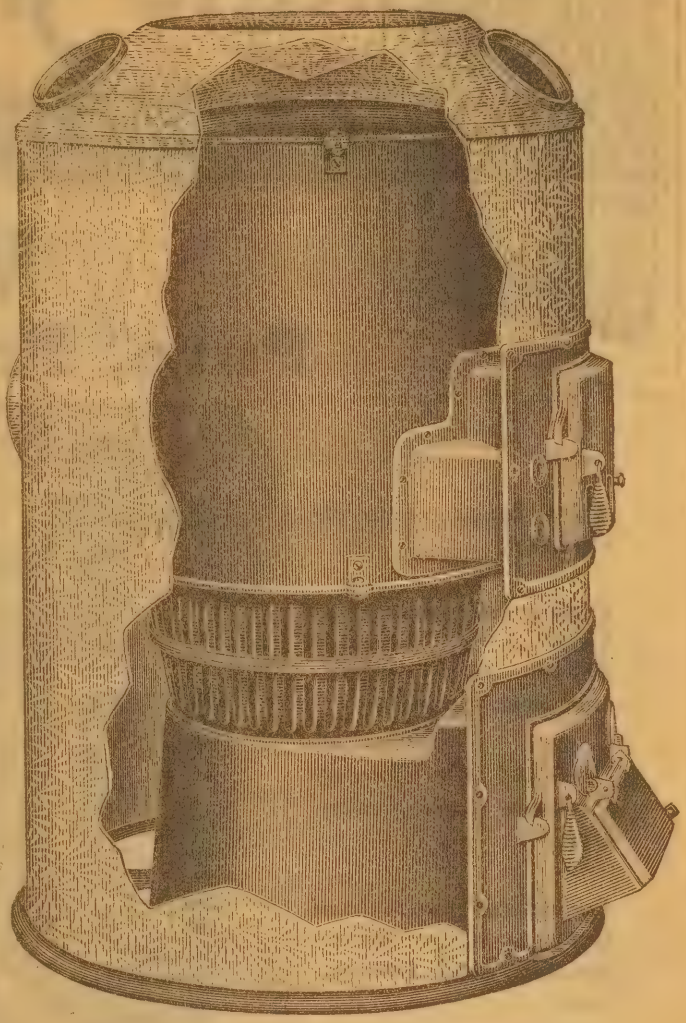
Radiator. Is made of extra heavy steel plate with smoke collar directly opposite the feed door. It is securely fitted and perfectly joined. Securely bolted to the cast top and bottom absolutely gas tight. The interior construction forces the flames to travel clear to the top of radiator before they can enter the pipe—saves a large portion of heat which ordinarily escapes through the smoke pipe.

Casing. Made of bright heavily galvanized iron. The upper section is lined with asbestos and further insulated with an inner lining of corrugated plate. This prevents the escape of heat to the basement.

Doors. The feed door is extra large which prevents the spilling of fuel and enables you to burn large chunks of wood. Large ash pit door makes it easy to clean out the ashes.

Water Pans. Water pans of furnaces are fitted with a large cast iron water back which should be kept filled with water, to purify the heated warm air before it is circulated to the rooms of your home.

Accessories. With every Harris great "Challenge" warm air furnace we supply a nicely finished damper, regulator to be attached to the floor or wall of the room directly above the furnace. Chains and pulleys are also included for the connections. We also include plenty of asbestos cement for the joints, shaker handle, poker and bolts for fastening the different parts together.



The Harris great "Challenge" warm air furnace is a high grade furnace that can be depended upon to supply you with the maximum amount of heat from the fuel you burn. This furnace is the product of a modern well equipped factory whose entire output is distributed to our customers in all parts of the country. They are built in dependable fashion from bottom to top of finest heavy galvanized steel and smoothly finished perfectly fitting castings.

The Large Proportions of these Furnaces and Their Improved Construction Insures Most Efficient Service

SPECIFICATIONS AND PRICES

No.	Diameter Casing	Diameter of Fire Pot	Depth of Fire Pot	Diameter of Grate	Shipping Weight	Size of Smoke Pipe	Price
17-X-520	34 in.	20 in.	11½ in.	16 in.	500 lbs.	8 in.	$80.00
17-X-522	38 in.	22 in.	12½ in.	18 in.	600 lbs.	8 in.	90.00
17-X-524	42 in.	24 in.	13½ in.	20 in.	800 lbs.	8 in.	110.00

See following pages for Registers, Pipes and Fittings

HARRIS SIMPLIFIED

INSTALLED QUICKLY AND ECONOMICALLY

WARM AIR

Pure, Fresh, Warm Air

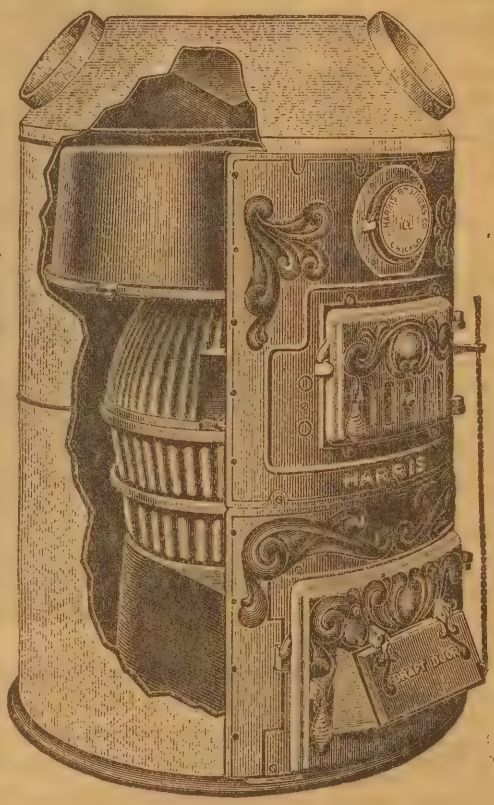
Extra large reversible radiator.

Corrugated sheet iron inner casing. Asbestos lining. Heavy galvanized outer casing.

Deep fire pot. Largely increases heating capacity.

Corrugated sectional fire pot. Allows for expansion and contraction.

Large water pan. Cleans, purifies and moistens air.



Radiator easily cleaned; large cleanout plug.

Large feed door. Perfect fit. Air tight.

Tappings for hot water coil.

Triangular revolving grates. Remove clinkers quickly.

Deep ashpit prevents burnt grate bars.

The Principle and Advantages of the Warm Air Plant

Quick heat with an abundance of clean, moistened, healthful warm air circulating through all the rooms in your home, are some of the many desirable features which have made the Warm Air Heating System so popular. Aside from these advantages, an efficient, highly satisfactory Warm Air Heating System can be installed in less time, with less work and for considerably less money than a steam or hot water plant. Warm Air Heating Systems are used everywhere for heating moderate size homes, stores, churches and schools. Where the furnace can be centrally located, a warm air plant always gives excellent results when installed according to the simple plans and easily understood instructions furnished free by our engineers.

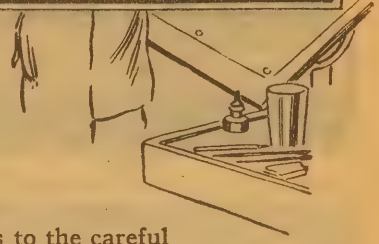
In climates where there are quick changes in temperature only a low fire need be kept up on the mild days. Then, when there is a sudden drop in temperature, by simply opening the drafts, you can get almost instantaneous heat in all your rooms. The fresh air coming into the heating chamber through the cold air intakes and return register passes over the water pan, where it is cleaned and moistened. It is then heated in the upper part of the furnace, rising quickly through the pipes to the rooms above. As the air cools, it is lead back to the furnace through the return air register, remoistened, recleaned, reheated, and passed on to the rooms again. This insures even steady heat and good ventilation.

Let Us Figure That Heating System for You Today!

HARRIS BROTHERS CO.
35th & Iron Streets, Chicago.

SYSTEMS of HEATING

WITH THE AID OF OUR EXPERT ENGINEERING SERVICE



FURNACES

For Heating & Ventilating

Harris Warm Air Heating Systems offer many advantages to the careful buyer. They are made of all new high grade material in a large up-to-date, well equipped foundry. Every piece and part is carefully constructed by skilled workmen, carefully assembled and inspected before shipment. All furnaces are entirely set up when completed, the holes are drilled to match, the doors tight, and all parts must fit perfectly. Read the following specifications; you will then clearly see why you should buy a Harris Warm Air Heating System, with its many advantages, and no other:

Harris Furnaces can be furnished with either cast iron or steel reversible radiators. These radiators are much heavier than regularly supplied with warm air furnaces. Upper and lower sections are securely bolted together with asbestos between the joints, making an air-tight construction. The fire and gases must pass completely around the circumference of the radiator, thus giving off all of the heat before passing up the chimney. All radiators are equipped with clean-out plugs. The cast iron radiators will not heat as rapidly as the steel, but retain heat longer. Either the steel or cast iron type installed in the Harris Furnace are guaranteed to give absolute satisfaction.

The Feed Section is extra heavy cast iron, designed to follow the cone shape of the fire. Sections are heavily corrugated.

The Fire Pot is in two parts, the sections being set together with deep grooves, thus allowing for expansion and contraction which reduces the possibility of cracking to the minimum. We supply with each furnace sufficient cement to make all joints gas tight. The heavy corrugation of the fire pot gives greatest heating surface possible. The heating capacity of our furnaces is greatly increased by the extra depth of the fire pot.

The Ash Pit is large and roomy, allowing for an accumulation of ashes without danger of burning the grate bars. The grate is extra heavily constructed, bars are triangular type and clinkers can be quickly removed. Any of the bars can be removed or replaced in a minute's time—no tools necessary.

Ashpit or Draft Door is of butterfly type and can be regulated by means of damper chains from the living rooms.

All furnaces are tapped for hot water coil.

The Casing Construction on Harris Furnaces is the most efficient heat conserving possible. The inner casing is made of heavy black corrugated sheet iron, well insulated with asbestos. The outer casing is bright galvanized iron, 26-gauge. This casing construction forces all of the heat through the supply pipes to the living rooms and thus effects a large saving in fuel.

Accessories. With each furnace we include, without extra charge, check draft, asbestos cement, water pan, poker, shaker handle, draft and regulating dial plate, chain and pulleys.

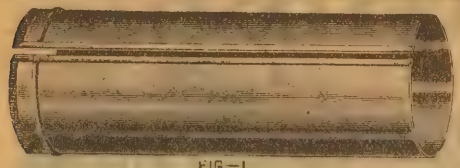
Our Experienced Engineers Serve You Free!

Simply send us a rough sketch of the layout of rooms in your house, indicating the size of all rooms. Our estimate will relieve you of all worry and responsibility. You can rest assured the plant we figure for you, including all the material for its installation, will heat your home satisfactorily, in all weather, with a substantial saving in fuel.

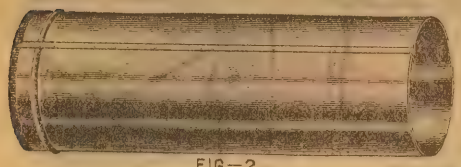
PRICES AND SPECIFICATIONS OF HARRIS FURNACES

Furnace Number	17-X-20	17-X-22	17-X-24	17-X-26	17-X-28	17-X-30
Heating Capacity, in cu. ft.	13,000	16,000	23,000	35,000	47,000	65,000
Diam. Fire Pot, in inches	20	22	24	26	28	30
Diam. Casing, in inches	34	38	42	46	50	54
Height with casing, in inches	56	59	62	65	68	73
Height of Radiator, in inches	13	13	13	14	14	14
Size of Feed Door, in inches	9x12	9x12	9½x12½	9½x12½	10x13	10x13
Size of Ash Door, in inches	13x16	13½x18	14½x20	15½x22	16½x23	16½x25
Diameter Smoke Pipe, in inches	8	8	8	9	10	10
Shipping Weight, in lbs.	790	925	1,135	1,350	1,580	1,700
Price with Cast Iron Radiator	$85.00	$100.00	$125.00	$145.00	$180.00	$210.00

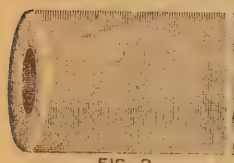
LATEST IMPROVEMENT IN HOT AIR PIPE



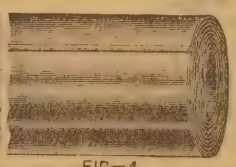
FIG—1



FIG—2



FIG—3



FIG—4

We call your special attention to the latest improvement in HOT AIR PIPE and WALL STACKS, which we have recently adopted and which we use as a special feature on all hot air heating plants sold by us. By examining the illustrations given below, you will note at once the vast superiority of our **Patented Nested Hot Air Pipe** over the old style. The old form of hot air pipe as a rule was put up in 5 to 6-foot lengths, so that the amount of pipe on an ordinary job would require several large, bulky crates, inconvenient to handle and taking excessive freight rates. Besides this, the pipe very often becomes crushed and damaged in transit. By referring to figures 3 and 4 you will see how fifty feet of wall pipe can be shipped in one small roll securely wrapped in burlap and absolutely protected from damage in shipment.

Figure 1 shows a length of hot air pipe ready for use. Each length is 2 feet long and is clasped together as shown in the illustration. This joint is a special patent, which is guaranteed to make the pipe absolutely firm and air tight.

Figure 2 shows a length of hot air pipe connected and ready for use. We guarantee that the seam is air tight. The adjustment of our patented nested hot air pipe is simplicity itself. Each length will be smooth and free from dents because of the manner in which this hot air pipe is shipped.

In Figures 3 and 4 you will note a roll of fifty feet ready for shipment. There is no hot air pipe made that combines all the special features and which is equal to our patented nested hot air pipe from every possible standpoint.

PRICE LIST OF OUR PATENTED NESTED HOT AIR PIPE

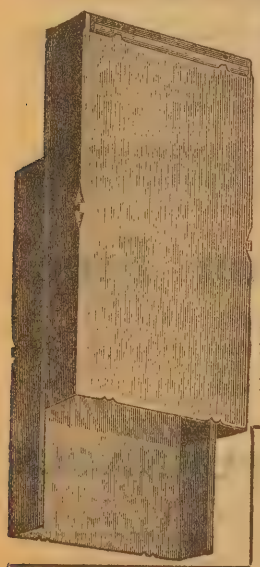
Comes in two-foot lengths only.

17-X-157. Size 8 in. Price, per foot..**32c**
17-X-158. Size 9 in. Price, per foot **34c**
17-X-159. Size 10 in. Price, per foot..**37c**

FOUR PIECE ADJUSTABLE HOT AIR ELBOW

The hot air elbows furnished on our furnace outfits are of the adjustable type as shown in the illustrations here given. Note how they can be adjusted to any desired angle. Can be used straight, offset, 45 degree or as 90 degree angles. We furnish two on each run of hot air pipe, so that you have no difficulty whatever making connections between furnace and stack boots. Made strong and durable.

17-X-146. Size 8 in. Price, each.....**44c**
17-X-147. Size 9 in. Price, each.....**48c**
17-X-148. Size 10 in. Price, each.....**58c**



IMPROVED WALL PIPE

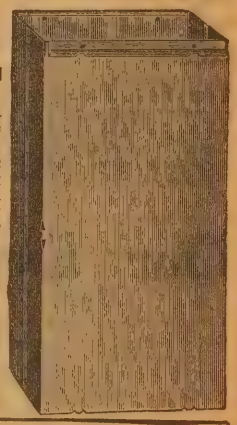
The accompanying illustrations show our Improved Nested Wall Pipe as furnished on our hot air heating plants. The advantages of this new form of wall pipe are apparent at a glance.

Figure 1 shows how this wall pipe is installed and put together, while Figure 2 shows a length of wall pipe locked and ready for use. Note how easily a wall stack of this form can be installed and adjusted to any desired length. Comes in two-foot lengths, and each piece is equipped with a special locking seam to fasten it securely to the adjoining length. This improved wall pipe is shipped **nested,** the same as our hot air pipe, which guarantees your always receiving wall pipe free from dents, buckles or mars. Bear in mind that the price of this improved form of wall stack is not any higher than the old style wall stack.

WALL PIPE

17-X-166. Size 3 x10. Per foot....**35c**
17-X-167. Size 3½x10. Per foot....**37c**
17-X-168. Size 3 x12. Per foot....**39c**
17-X-169. Size 3½x12. Per foot....**42c**
17-X-170. Size 3½x13. Price, per foot....**44c**

Prices on all forms of furnace fittings to fit any style registers or pipe quoted on application.



SINGLE BOOTS AND STACK HEADS

On all hot air heating plants sold by us we furnish proper boots, stack heads and other fittings required for the complete and successful installation of the outfit. The conditions naturally differ more or less on each individual job, but you may rest assured that our engineers always supply the right fitting for the right place. We have letters on file from thousands of satisfied customers, all of them showing that the installation of their hot air plants was made exceedingly simple by our detailed blue prints and instructions. No technical knowledge is required. Each piece fits together easily with the other. No tools are necessary, only a tinner's snip. 25% of the cost of hot air plant is saved our customers by enabling them to install the plant themselves.

Special Note **We are in a position to furnish you with stack heads, boots and other furnace fittings of every known** make and description and we will gladly give you an estimate on any material you may need. Be sure to give us full particulars with your original inquiry. In ordering stack heads, be sure to specify the size wall pipe and the size registers to be accommodated. In ordering boots, be sure to give the size of the wall stack and the size of the collar. Save time by writing fully.

Warm Air Furnace Equipment

Floor Register

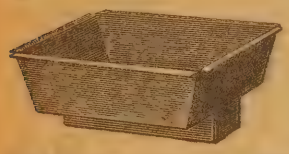
Our No. 17-X-600

Size of Opening Inches	Register	Register Face	Floor Border
8x10	$1.30	$0.86	$1.00
9x12	1.65	1.15	1.32
10x10	1.85	1.30	1.36
10x12	1.90	1.35	1.40
10x14	2.50	1.65	1.76
12x12	3.15	.....	2.16
12x14	3.45	.....	2.24
12x15	3.55	.....	2.32
14x20	7.60	.....	3.85

Base Board Registers

We furnish the Imperial Horizontal Baseboard Registers on all plants sold by us. They have a patent wheel movement and fan shut-off, insuring largest possible capacity. They set in the baseboard. If you want a wall register to fit a stack-head already installed specify size of opening in the stackhead and whether register is to be placed above, or in the baseboard.

	Size Inches	Finish	Price Each
17-X-500—	8x10	Blk. Japanned	$1.60
17-X-503—	9x12	Blk. Japanned	2.00
17-X-506—	10x12	Blk. Japanned	2.90
17-X-509	12x14	Blk. Japanned	4.65



17-X-230—Size 3x10.....67c
17-X-231—Size 3½x10.....67c
17-X-232—Size 3 x12.....77c
17-X-233—Size 3½x12.....77c
17-X-234—Size 3½x13.....86c

In ordering Registers, bear in mind that dimensions given in this table and used in describing registers apply to the size of the opening in the Register Box or Stackhead and not to the extreme outside dimension of the Registers.

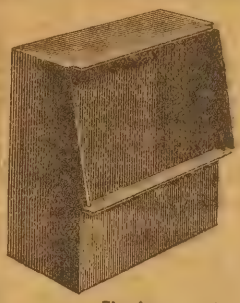


Fig. 1
Stack Head for First Floor Register
17-X-200—Size 8x10....$0.80
17-X-201—Size 9x12.... .92
17-X-202—Size 10x12.... .92
17-X-203—Size 12x14.... 1.00

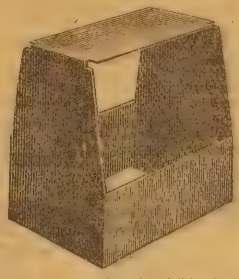


Fig. 2
Stack Head for First Floor—Two Registers
17-X-204—Size 8x10....$0.96
17-X-205—Size 9x12.... 1.08
17-X-206—Size 10x12.... 1.08
17-X-207—Size 12x14.... 1.15

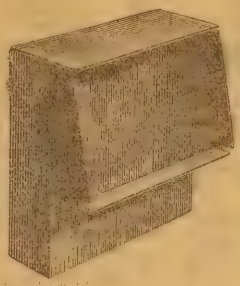


Fig. 4
Stack Head for Second Floor Register
17-X-208—Size 8x10..$0.80
17-X-209—Size 9x12.. .92
17-X-210—Size 10x12.. .92

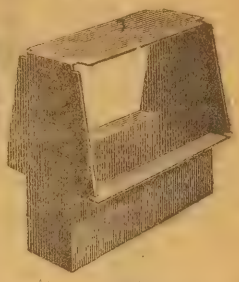


Fig. 5
Stack Head for Second Floor—Two Registers
17-X-211—Size 8x10..$0.95
17-X-212—Size 9x12.. 1.03
17-X-213—Size 10x12.. 1.03

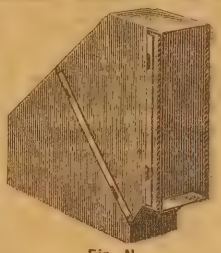


Fig. N
Stack Ell
17-X-250—Size 3 x10...$0.96
17-X-251—Size 3½x10.... .96
17-X-252—Size 3 x12.... 1.04
17-X-253—Size 3½x12.... 1.04
17-X-254—Size 3½x13.... 1.20

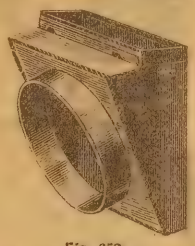


Fig. 352
Boot for Second Floor Stack
17-X-220—Size 3 x10...$0.67
17-X-221—Size 3½x10.... .67
17-X-222—Size 3 x12.... .77
17-X-223—Size 3½x12.... .77
17-X-224—Size 3½x13.... .86

Register Box for First Floor
17-X-235—Size 8x10..$0.86
17-X-236—Size 10x12.. .96
17-X-237—Size 12x15.. 1.35

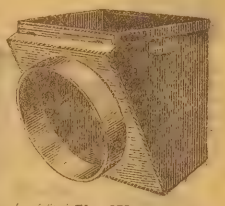


Fig. 652.
Boot for First Floor Stack Head

Size	Price
17-X-258—8x10	$1.02
17-X-255—9x12	1.23
17-X-256—10x12	1.23
17-X-257—12x14	1.40

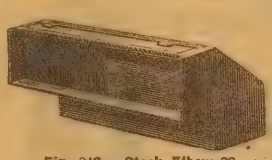


Fig. 318. Stack Elbow 26
17-X-240—Size 3 x10.....$0.67
17-X-241—Size 3½x10..... .67
17-X-242—Size 3 x12..... .77
17-X-243—Size 3½x12..... .77
17-X-244—Size 3½x13..... .86

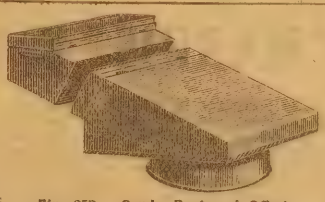


Fig. 353. Comb. Boot and Offset
17-X-225—Size 3 x10.....$1.05
17-X-226—Size 3½x10..... 1.05
17-X-227—Size 3 x12..... 1.15
17-X-228—Size 3½x12..... 1.15
17-X-229—Size 3½x13..... 1.25

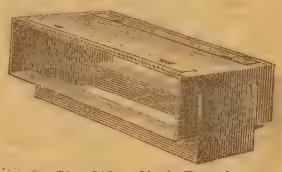


Fig. 316. Stack Tee 26
17-X-245—Size 3 x10.....$0.67
17-X-246—Size 3½x10..... .67
17-X-247—Size 3 x12..... .77
17-X-248—Size 3½x12..... .77
17-X-249—Size 3½x13..... .86

Excellent Domestic Water Heater

17-X-984. An efficient water heater especially made to be used in any standard furnace. Made of finest smooth gray cast iron. Convenient clean-out plug enables you to remove sediment. Two openings for 1 in. pipe. Easily installed by removing parts covering these openings. Efficiently used in connection with any 40 gallon range boiler. Price, each..... $2.50

Smith's Maltese Heaters

These Maltese Heaters are the most efficient hot water heating appliances ever invented for use in connection with a hot air furnace. Can be connected in series of one or more above the other, as shown in this illustration, with connecting nipples between, if desired.

No. 17-X-2100.

Prices and Dimensions

Inches	Tapped	Height	Feet of Radiation	Heat. Gal. Tank	Price. Full Size	Price. ¾ Size
9	¾	2	30	30	$ 3.40	.....
12	1	2½	50	50	4.50	$3.95
15	2	3	75	75	9.00	8.10
18	2½	3	100	100	13.50	12.60
21	3	3	150	175	17.10	15.30
24	3	3½	200	225	21.60	19.80
27	3	3½	250	300	26.00	24.30
30	3½	4	300	350	31.50	28.80

No. 12 is also tapped for 1¼ inch pipe. Full size Maltese are tapped top and bottom and can be bushed for any pipe. When two or more are coupled together, the ¾ size is used as bottom section and is tapped on top and middle arm. Can tap either right or left arm, if so desired. Two collars are sent with each heater. Add pipe surface to radiation when ordering.

RADIATOR VALVES.

5-X-178. Jenkins' Disc Angle Radiator Valve, with Union, nickel plated all over.

Inch	Each	Inch	Each
¾	$1.43	1½	$3.05
1	1.80	2	4.95
1¼	2.42		

5-X-174. Jenkins' Disc Corner Radiator Valves with Union, nickel plated all over. Made of heavy steam metal. Fully guaranteed. These valves are made for both right and left hand corners.

5-X-175. For right hand corner.

Inch	Each	Inch	Each
¾	$2.00	1½	$4.50
1	2.55	2	7.28
1¼	3.55		

5-X-176. For left hand corner.

Inch	Each	Inch	Each
¾	$2.00	1½	$4.50
1	2.55	2	7.28
1¼	3.55		

LOCK SHIELD RADIATOR VALVES.

5-X-177. Jenkins' Disc with Union, nickel plated all over.

Inch.	Each
¾	$1.15
1	1.45
1¼	1.95
1½	2.45

5-X-179. Quick Opening Hot Water Radiator Valve with Union, nickel plated all over.

Size	Each	Size	Each
¾	$1.05	1½	$2.67
1	1.37	2	4.10
1¼	1.90		

5-X-180. Hot Water Union Elbows, nickel plated all over.

Size	Each	Size	Each
¾	$0.76	1½	$1.51
1	.95	2	2.65
1¼	1.19		

5-X-181. Nickel Plated Compression Radiator Air Valves. Size, ¼ inch.
Price, each $0.15

5-X-183. Nickel Plated Compression Radiator Air Valves with wood wheels. Size, ¼ inch.
Each $0.17

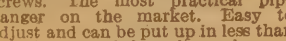
5-X-184. Nickel Plated Automatic Radiator Air Valves for steam.
Size of connection pipe thread, ¼ inch.
Each $0.40

PIPE HANGERS.

Can be cut to all desired lengths by disconnecting two lower screws. The most practical pipe hanger on the market. Easy to adjust and can be put up in less than half the time of the ordinary hanger.

21-X-185. Adjustable length, 2 to 10 inches.

Pipe Inches	Each	Pipe Inches	Each
1	$0.14	2½	$0.19
1½	.15	3	.21
1½	.16	3½	.24
2	.18	4	.30



PERFORATED STRAP IRON

21-X-1186. For large pipe or long drops we recommend our ⅞ perforated strap iron. Price per foot 5 ft. and 10 ft. lengths..... $0.06
50 ft. or more..... .05
¼ stove bolts for same, per doz. .06
¼ stove bolts for same, per 100 .50

HOT WATER THERMOMETERS

Used in connection with hot water heating plants, registering up to 220 degrees. Guaranteed accurate. Each Thermometer is carefully packed in a separate wooden box.

5-X-187. Straight Thermometers as shown in illustration. Price, each. $1.00

5-X-188. Angle Thermometers for use on risers or circulating pipes. Price, ea. $1.25

ALTITUDE GAUGES.

5-X-189. Altitude Gauges are used for indicating the height of water in a hot water heating system. The red hand is movable. When you determine the height of water to just fill the system correctly, set the red hand at that point and then the indicating hand should be right on top of it.
Each $3.25

GRAPHITE PIPE JOINT CEMENT

5-X-9535. For use in steam, hot water or other pipe connections Makes joints air tight and does not harden, making it easy to put in pipe connections without breaking the fitting.
2-lb. can **45c**

GALVANIZED STEEL EXPANSION TANKS

These are used in connection with hot water heating plants. Water gauge not included at prices quoted.

	Capacity gallons	Size Inches	Sq. feet of radiation	Price Each
5-X-190	8	10x20	300 to 400	$7.75
5-X-191	10	12x20	400 to 500	8.20
5-X-193	15	12x30	500 to 600	9.05
5-X-195	20	14x30	600 to 700	12.25
5-X-197	26	16x30	700 to 900	13.55
5-X-198	32	16x36	1000 to 1300	14.50
5-X-199	42	16x18	1300 & Up	16.50
5-X-201	Water gauge set.....			1.20

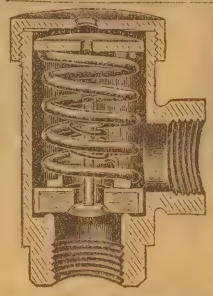
NICKEL PLATED FLOOR AND CEILING FLANGES.

5-X-202. Floor Flange

Size Inches	Price Each	Size Inches	Price Each
½	$0.11	1¼	$0.15
¾	.12	1½	.16
1	.14	2	.19

5-X-203. Ceiling Flange.

Size In.	Price Each	Size In.	Price Each
½	$0.11	1¼	$0.15
¾	.12	1½	.16
1	.14	2	.19



HEAT GOVERNOR

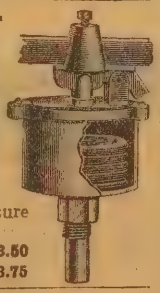
For Hot Water Heating Systems

This device keeps a constant pressure of about 10 pounds on the water of the system and permits you to heat the water to a very high temperature. You will get much higher heating efficiency on the plant, save fuel and will give better circulation.

Can be attached in a few minutes to any Hot Water Heating system. Made of solid bronze throughout—will not rust or get out of order, will last a lifetime.

No. 5-X-4570. Heat Governor (weight 5 lbs.) Price..... **$5.50**

"HARRIS" DAMPER—REGULATOR



This regulator is without doubt the most practical on the market, it's self-friction being reduced to a minimum point where it operates at a very low pressure. The working parts are made from the best quality of phospher bronze, and the cast iron housing prevents ashes or dust from entering into the working chamber. Its operation is very simple and needs no looking after. They are all tapped for ¾ inch pipe. The Hot Water Damper Regulator can be adjusted to close dampers at any temperature between 20 to 240 degrees.

Lot No. 5-X-27 Steam Regulator $13.50
Lot No. 5-X-28 Hot Water Regulator..... 13.75

RADIATOR BRONZE POWDER

5-X-7590. Gold Bronze Powder. A good quality for general use.

½ pound can..... $0.80
1 " " 1.50
2 " " 2.90

RADIATOR BRONZE POWDER ALUMINUM POWDER

5-X-7595.

½ pound can $1.00
1 " " 1.95
2 " " 3.80

WOOL FELT PIPE COVERING.

21-X-205. Especially recommended for hot water heating plants. This covering is made of soft corrugated wool felt with interlining of two layers of asbestos felt, and finished with a canvas jacket.

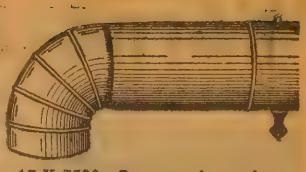
For Pipe, Size.	Price, per 3 ft. Length.	For Pipe Size.	Price, per 3 ft. Length.
¾	36c	2½	60c
1	41c	3	68c
1¼	45c	3½	75c
1½	50c	4	90c
2	54c		

MOULDED ASBESTOS PIPE COVERING.

21-X-204. This form of covering is offered as a durable and effective non-conducting covering. It is absolutely fireproof and is made in sections in the various sizes, 3 feet long, which are finished with canvas jackets, and provided with sufficient metal bands to securely fasten it to the pipe. Thickness of covering, 1 inch.

For Pipe, Size.	Price, per 3 ft. Length	For Pipe Size.	Price, per 3 ft. Length
½	$0.33	2	$0.54
¾	.36	2½	.60
1	.41	3	.68
1¼	.45	3½	.75
1½	.50	4	.90

SMOKE PIPE



17-X-7530. Our regular galvanized smoke pipe furnished with all our Heating Plants, made of **26-gauge heavy galvanized sheet iron,** comes in 2 foot lengths. This stack is shipped knocked down in the flat, sheets all flanged and seamed. Can be assembled in a few minutes. Prices as follows:

Inch....	6	7	8	9	10	12
Per foot	36c	40c	42c	44c	48c	64c

17-X-7535. Smoke Dampers to fit above pipe. Prices as follows:

Inch. ..	6	7	8	9	10	12
Each....	50c	60c	80c	$1.00	1.20	1.40

17-X-7540. 26 Gauge Galvanized Elbows to fit above smoke pipe. Prices as follows:

Inch.	6	7	8	9	10	12
Each....	50c	60c	70c	80c	$1.00	1.40

RED LEAD FOR PIPE JOINTS

This is the regular plumbers red lead for making joints water, gas or steam tight.
5-X-7580. Comes in one pound cans, price, per can $0.18

RADIATOR BRONZE MIXING LIQUID AND BRUSH

Must be mixed with bronze.

5-X-7585

1 pint cans, each.. $0.30
1 quart " " .. .48
½ gallon can ..... .75
1 " " 1.00

Bronzing brush, each..... .35

ASBESTOS CEMENT.

No. 21-X-207. A dry cement for covering heating boilers, iron or any other surface to prevent loss of heat. Composed of asbestos fibre and other materials. Should always be used on heating boilers as it increases efficiency of boiler at least 50 per cent.

As asbestos Moulded covering for fittings are only made as ordered, we would recommend the use of Asbestos cement in their place. Figure 1½ lbs. of cement to a fitting up to 2 inches. Larger size fittings in proportion. Mix with water and apply same as mortar. It is better to apply this cement when boiler is hot. Put on in two coats. Comes in 100 lbs. bags.
Price, per bag..... **$1.75**
Smaller quantities, per lb..... 3½c

ASBESTOS AIR CELL PIPE COVERING.

No. 21-X-206. Suitable for steam or hot water heating plant. Is a first class heat insulator. It is one inch thick, made up of layers of Asbestos with small air spaces between. These air spaces very materially increase the efficiency of the covering. It is light, thus reducing freight charges. Mechanically stronger, so less liable to breakage, and we believe it is in every way equal to the Asbestos Moulded Pipe Covering. Sold in sections of 3 feet. Easily applied. Metal bands for each section. Price, per foot.

For Pipe Size	Price per 3 ft. Lgth.	For Pipe Size	Price per 3 ft. Lgth.
½	33c	2	54c
¾	36c	2½	60c
1	41c	3	68c
1¼	45c	3½	75c
1½	50c	4	90c

Write for our Complete Heating Proposition

Brass Valves and Cocks—Iron Body Valves

Full standard weights, suitable for 100-pound steam pressure. For use either steam or water purposes. Made of the best grade metals of proper mixture to give excellent satisfaction. The valves are carefully machined and have full openings. We guarantee them fully in every respect and we will replace any valve without charge that does not prove entirely satisfactory.

Prices of All Material on This Page Are Subject to Market Changes

STANDARD BRASS GLOBE VALVES

5-X-4901

Size.	Each.
⅛ inch	$0.54
¼ inch	.55
⅜ inch	.60
½ inch	.78
¾ inch	.98
1 inch	1.40
1¼ inch	1.95
1½ inch	2.73
2 inch	4.10

STANDARD BRASS ANGLE VALVES

5-X-4903

Size.	Each.
⅛ inch	$0.54
¼ inch	.55
⅜ inch	.60
½ inch	.78
¾ inch	.98
1 inch	1.40
1¼ inch	1.95
1½ inch	2.73
2 inch	4.10

JENKINS' DISC BRASS GLOBE VALVES

5-X-4905

Size.	Each.
¼ inch	$0.75
⅜ inch	.84
½ inch	1.08
¾ inch	1.49
1 inch	1.89
1¼ inch	2.70
1½ inch	3.72
2 inch	5.90

JENKINS' DISC BRASS ANGLE VALVES

5-X-4907

Size.	Each
¼ inch	$0.75
⅜ inch	.84
½ inch	1.08
¾ inch	1.49
1 inch	1.89
1¼ inch	2.70
1½ inch	3.72
2 inch	5.90

STANDARD GATE VALVES

5-X-4909

Size.	Each.
¼ inch	$1.15
⅜ inch	1.20
½ inch	1.35
¾ inch	1.78
1 inch	2.30
1¼ inch	3.00
1½ inch	4.10
2 inch	6.00

STANDARD HORIZONTAL CHECK VALVES

5-X-4923

Size.	Each.
⅛ inch	$0.49
¼ inch	.50
⅜ inch	.54
½ inch	.70
¾ inch	.90
1 inch	1.25
1¼ inch	1.75
1½ inch	2.45
2 inch	3.70

JENKINS' DISC BRASS CHECK VALVES

5-X-4925

Size.	Each.
¼ inch	$0.75
⅜ inch	.80
½ inch	.90
¾ inch	1.29
1 inch	1.75
1¼ inch	2.40
1½ inch	3.38
2 inch	5.00

STANDARD SWING CHECK VALVES

5-X-5927

Size.	Each.
½ inch	$1.20
¾ inch	1.36
1 inch	1.70
1¼ inch	2.20
1½ inch	2.88
2 inch	4.10

STANDARD VERTICAL CHECK VALVES

5-X-4929

Size.	Each.
⅛ inch	$0.59
¼ inch	.60
⅜ inch	.63
½ inch	.82
¾ inch	1.05
1 inch	1.50
1¼ inch	2.05
1½ inch	2.88
2 inch	4.35

STANDARD BRASS STEAM COCKS

5-X-4919

Size.	Each.
¼ inch	$0.52
⅜ inch	.61
½ inch	.77
¾ inch	1.05
1 inch	1.45
1¼ inch	2.30
1½ inch	2.98
2 inch	4.50

STANDARD BRASS GAS SERVICE COCKS

5-X-4921

Size.	Each.
¼ inch	$0.57
⅜ inch	.67
½ inch	.84
¾ inch	1.15
1 inch	1.59
1¼ inch	2.50
1½ inch	3.30
2 inch	4.95

COMPRESSION GAUGE COCKS

5-X-4915

With wood handles, brass finished, with stuffing box.

Size.	Each.
⅜ inch	$0.80
½ inch	.87
¾ inch	1.08

THREE-WAY BRASS STEAM COCKS

5-X-4917

Size.	Each.
½ inch	$1.75
¾ inch	2.15
1 inch	2.60
1¼ inch	4.10
1½ inch	5.05
2 inch	7.75

BIBB AIR COCK

5-X-4913

Size.	Each.
⅛ inch	$0.48
¼ inch	.54
⅜ inch	.60
½ inch	.68

BRASS AIR COCKS

5-X-4911

Size.	Each.
⅛ inch	$0.27
¼ inch	.30
⅜ inch	.33
½ inch	.40

POP SAFETY VALVES

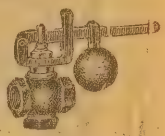
With phosphor bronze seats. For boilers of all kinds.

When ordering be sure to state pressure the valve is to be set at.

5-X-4931

Size, In.	Horse Power.	Each up to 15 lb. Pressure.	Each from 15-100 lb. Pressure.
¾	8	$2.85	$4.40
1	12	3.25	5.50
1¼	18	3.50	6.60
1½	20	4.50	8.25
2	30	6.15	12.65

STANDARD BRASS BALL AND LEVER SAFETY VALVES



5-X-4933

Size.	Each.
½ inch	$2.50
¾ inch	3.00
1 inch	3.60
1¼ inch	5.50
1½ inch	7.00
2 inch	9.75

IRON BODY ANGLE VALVES

21-X-104. Brass mounted, with yoke, flange ends.

Size.	Each.
2½ inch	$ 9.90
3 inch	13.80
3½ inch	17.00
4 inch	20.75
5 inch	28.50
6 nich	38.75

IRON BODY GLOBE VALVES AND ANGLES

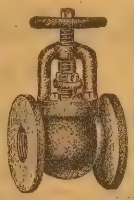
Brass mounted with yoke, screw ends.

21-X-101. Globe Valve.

21-X-105. Angle Valve.

Size.	Each.
2½ inch	$ 8.30
3 inch	11 50
3½ inch	14.00
4 inch	17.35
5 inch	24.90
6 inch	34.50

IRON BODY GLOBE VALVES



21-X-103. Brass mounted, with yoke, flange ends.

Size.	Each.
2½ inch	$ 9.90
3 inch	13.80
3½ inch	17.00
4 inch	20.75
5 inch	28.50
6 inch	38.75

Iron Body Valves

Standard weight, well proportioned. Suitable for working pressure up to 100 pounds. Made of special iron; have full openings. Carefully machined and finished. For steam or water. Guaranteed to give perfect satisfaction for any work where standard valves are generally used.

IRON BODY GLOBE VALVES

21-X-97. Brass mounted, plain screw ends.

Size.	Each.
2 inch	$ 5.70
2½ inch	7.75
3 inch	10.35

IRON BODY ANGLE VALVES

21-X-99. Brass mounted, plain screw ends.

Size.	Each.
2 inch	$ 5.70
2½ inch	7.75
3 inch	10.35

STRAIGHT WAY GATE VALVES

21-X-109. Iron body, brass trimmings, stationary stem, screw ends.

Size.	Each.
2½ inch	$ 9.55
3 inch	11.60
3½ inch	14.10
4 inch	15.90
5 inch	23.80
6 inch	27.45

STRAIGHT WAY GATE VALVES

21-X-110. Iron body, brass trimmings, stationary stem, flange ends.

Size.	Each.
2½ inch	$11.00
3 inch	13.50
3½ inch	16.00
4 inch	18.90
5 inch	25.75
6 inch	29.95

IRON BODY HORIZONTAL CHECK VALVES

21-X-150. Brass mounted screw ends.

Size	2½	3	3½	4	5	6
Each	$6.00	$8.20	$11.30	$13.00	$20.30	$27.50

IRON BODY HORIZONTAL CHECK VALVES

21-X-108. Brass mounted, flange ends.

Size	3	4	5	6
Each	$10 50	$16.50	$24.00	$32.25

Second Hand Valves and Fittings

We are constantly securing Valves and Fittings of every kind, in connection with our purchases of complete plants and factories.

LET US KNOW YOUR NEEDS—WRITE FOR PRICES NOW

A Harris Air Pressure Water Supply
Pure Fresh Water in Abundance

You May Now Enjoy All of the Conveniences of a City Home

A "Harris" water supply outfit gives you every convenience of clear, pure running water when and where you want it. You will only have to turn the faucet. Free yourself of the drudgery of having to carry water around in pails. You can now have a modern bathroom in your home. Many steps may be saved in the kitchen and laundry. You'll wonder how you got along without running water after your system is installed.

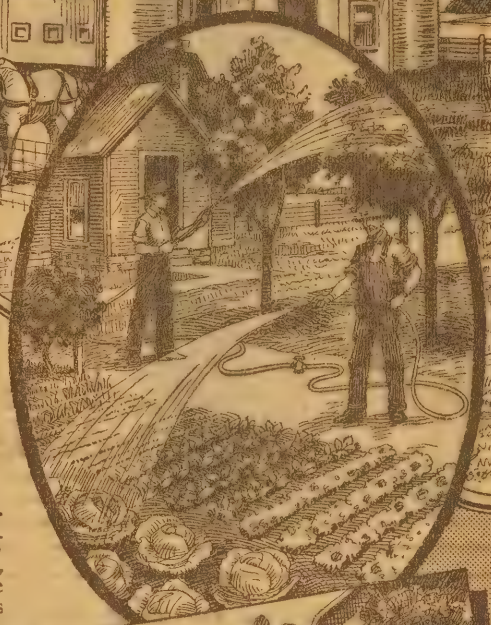
A Reliable Protection in Case of Fire

You cannot afford to take the risk of being without a water supply system of some kind for use in case of fire. An elevated tank in the attic may have some advantages over carrying water from the well in buckets, but its use is very limited. An air pressure system offers the most reliable protection. With water pipes throughout the house and faucets placed at various convenient and accessible points, it is almost impossible for a fire to get much of a start. Simply connect the hose to any of the faucets, turn on the valve and you can have the fire extinguished in a few moments.

Read over carefully description of the outfits on the following pages. The advantages offered, the simplicity of operation and the low prices at which they are offered make it, not a matter of deciding whether or not you want an outfit, but rather, a matter of deciding which of the outfits you want. Start today to get your outfit. Order Now!

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Outfit is Easily and Quickly Installed
Always Ready When and Where You Want it



So Handy About The Farm for Watering Purposes

You will quickly realize the advantages of an air pressure water supply system. It is so much handier than carrying the water around in buckets. Just the thing for watering horses, cattle, hogs and chickens. A system of this kind is almost a necessity for use in the garden. A lawn sprinkler may be attached, keeping the grass always fresh and green.

Quickly and Easily Installed and Operated

Any ordinary mechanic can install one of these systems for you, or you can do the work yourself in one afternoon. Complete plans and instructions are furnished with every outfit making it impossible for you to go wrong. There is no possible chance for these outfits to get out of order. They are very simple, containing the fewest working parts of any outfit on the market. Every outfit is guaranteed to be absolutely satisfactory in every way or your money will be refunded. If you are in doubt as to which size outfit will be needed to fulfill your requirements, we will be glad to give you any information that might help you out.

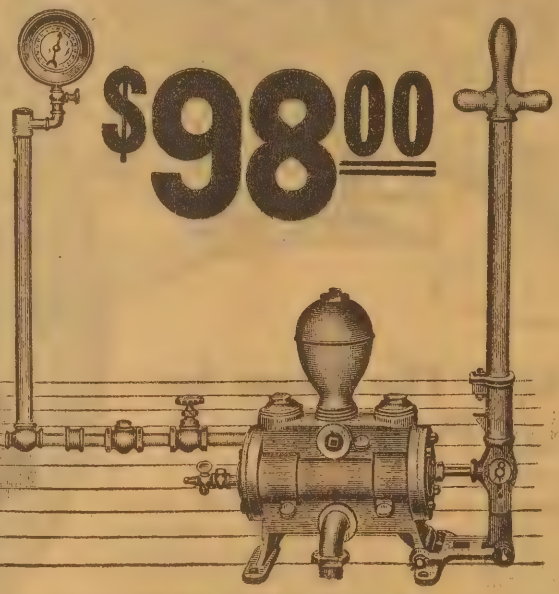
Picture your home equipped with all the conveniences that are offered by one of these outfits. Think of the time, money and unnecessary labor that will be saved. Read over the following pages carefully. The extremely low prices will convince you that these outfits are a necessity that you cannot afford to be without. Look them over now!

NEW UP-TO-DATE WATER WORKS OUTFIT

This simple and reliable outfit will be found to be a most efficient water works system. After reading the full instructions, furnished with each outfit, you'll be able to set it up in a few hours' time, regardless of whether you have had any previous experience or not.

No country or suburban home is complete without one of these outfits. It provides all of the conveniences of city life—running water, both hot and cold, for kitchen, bath-room and the entire premises. It will also furnish protection in case of fire. It's so convenient to have plenty of hot and cold running water whenever and wherever you want it that you would not want to part with the outfit after it is once installed.

We are confident that you will be more than satisfied. That's why we offer to refund your money if you are not. Each outfit is guaranteed to work successfully and to be absolutely perfect in every detail.



98.00 for Complete Outfit

Consisting of:

Brand New Black Steel Pneumatic Tank, size 24 in. x 6 ft., double-riveted, capacity 145 gallons, working capacity 100 gallons, made of 3/16 shell and 5/16 head.

Our Horizontal Double-acting Force Pump, equipped with pneumatic attachment for pumping water and air at same time, 1¼ in. suction, 1 in. discharge, capacity 300 gallons per hour, tested under 150 lbs. cold water pressure. Most durable and dependable pump made.

Also Water Gauge, Pressure Gauge, Check Valve, Globe Valve, Elbows, Tees, Couplings and Nipples for complete installation.

5-X-6001. Outfit complete. Price, only **$98.00**

Outfit includes black steel double riveted air tight pneumatic tank, made of 3/16 shell and 5/16 head. Fully tested to 200 pounds air pressure and guaranteed for working pressure of 75 pounds. Price of outfit depends upon size of tank furnished as shown below.

Pump furnished with this outfit is our 4-X-2455 Double Acting Horizontal Force-Pump, equipped with pneumatic attachment and used for pumping water and air at the same time. Pump tapped for 1¼ inch suction and 1 inch discharge. We also furnish complete with water gauge glass, pressure gauge, check valve, globe valve and all other fittings, such as galvanized nipples, unions, couplings, etc., required in installation.

Special Note.—For the convenience of our customers, we list below several standard size outfits. Bear in mind, however, we can furnish these outfits with tanks of any size desired, either larger or smaller. Consult list given below and if you want special size tank, write us for quotation.

Tanks can be furnished to lay horizontally. Unless otherwise specified will be shipped with tappings for vertical setting.

Special quotations furnished on power driven outfits, deep well outfits or any other special feature wanted.

5-X-6002. Complete Outfit. Size of tank, 24 inches by 10 feet. Capacity of tank, 245 gallons. Working capacity, 160 gallons. Price **$133.00**

5-X-6005. Complete Outfit. Size of tank, 30 inches by 6 feet. Capacity of tank, 220 gallons. Working capacity, 160 gallons. Price **$117.50**

5-X-6007. Complete Outfit. Size of tank, 30 inches by 8 feet. Capacity of tank, 295 gallons. Working capacity, 200 gallons. Price **$137.50**

5-X-6009. Complete Outfit. Size of tank, 36 inches by 8 feet. Capacity of tank, 420 gallons. Working capacity, 300 gallons. Price **$159.00**

AIR PRESSURE TANKS

Prices on tanks subject to market changes. Note our very low prices on our air pressure tanks. We can furnish any of the various size tanks in the following list, at prices quoted. These prices are F. O. B. cars our factory near Chicago. We can quote you freight prepaid prices or F. O. B. Chicago prices on request. These tanks are all fully tested and guaranteed perfectly air tight before shipment. Guaranteed for a working pressure of 75 pounds.

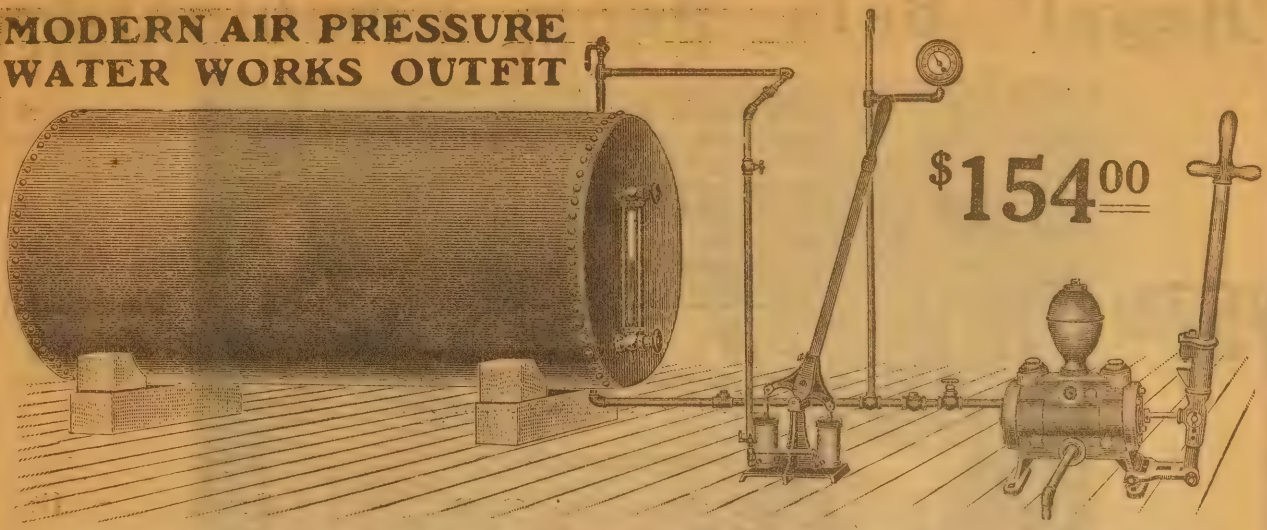
In ordering, state whether tank is wanted tapped to stand vertically or to lay horizontally.

Order Number	Diam. Inches	Length Feet	Weight Pounds	Capacity Gallons	Thickness, Inch. Shell	Thickness, Inch. Head	Prices Black	Prices Galv.
5-X-6101.	24	6	370	145	3/16	¼	$ 68.00	WRITE FOR PRICES
5-X-6105.	24	10	525	245	3/16	¼	102.00	
5-X-6107.	30	6	558	220	3/16	5/16	86.50	
5-X-6109.	30	8	677	295	3/16	5/16	106.85	
5-X-6111.	30	10	795	365	3/16	5/16	123.00	
5-X-6115.	36	6	760	315	3/16	5/16	103.00	
5-X-6117.	36	8	926	420	3/16	5/16	128.50	
5-X-6119.	36	10	1,090	525	3/16	5/16	148.50	
5-X-6121.	36	12	1,253	630	3/16	5/16	166.00	

Order Number	Diam. Inches	Length Feet	Weight Pounds	Capacity Gallons	Thickness, Inch. Shell	Thickness, Inch. Head	Price Black	Price Galv.
5-X-6123.	42	8	1,422	575	¼	⅜	$184.00	WRITE FOR PRICES
5-X-6125.	42	10	1,685	720	¼	⅜	214.00	
5-X-6127.	42	12	1,953	865	¼	⅜	242.00	
5-X-6129.	42	14	2,215	1,000	¼	⅜	274.50	
5-X-6135.	48	14	2,665	1,300	¼	⅜	312.00	
5-X-6137.	48	16	2,963	1,500	¼	⅜	347.50	
5-X-6141.	48	20	3,565	1,880	5/16	½	420.00	
5-X-6143.	48	24	4,167	2,260	5/16	½	486.00	

Manheads $15.00 extra. Water Gauges, etc., are not included in the above prices. All tanks tested to 200 lbs. air pressure, and guaranteed.

MODERN AIR PRESSURE WATER WORKS OUTFIT



One of the special features of this outfit is the absolutely positive air supply arrangement. You'll find this feature to be a decided advantage in that it will give you a plentiful supply of air at all times, with only a few strokes of the pump.

A two-cylinder air pump is furnished with this outfit. A very important feature, is the large 5-inch Cylinder Water Pump, which is furnished, supplying a large volume of water and filling the tank in a very short time. This reduces the amount of pumping required. A full set of instructions and blue print diagrams showing just how to install, furnished with every outfit.

We furnish these outfits, exactly as shown, complete, with large 5-inch Cylinder, Double Acting, Water Force Pump, Two-Cylinder, High Pressure Air Pump, with long, detachable lever, as illustrated, all necessary valves, check valves, fittings, pressure gauge, water gauge, complete with gauge cocks, guard rods, etc., the necessary piping to connect the pump with the outfit as shown; also the necessary pipe between the water pump and the tank. We do not furnish the suction pipe leading from the pump to the well, as this varies in every case. This will come extra, according to our net catalogue price on 1¼-inch Galvanized Iron Pipe. We, however, furnish the piping between the pump and tank, as shown in this illustration, and necessary fittings, which makes the outfit complete, as illustrated.

Below you will find four complete outfits. If in doubt, write us for complete estimate. Tell us the size outfit and send sketch of quantity of pipe and fittings needed from wel' to pump and from pump to supply in your home. We will make a delivered price on all your needs.

5-X-6203. Complete Outfit. Size of tank, 24 ins. by 10 ft. Capacity of tank, 245 gals. Working capacity, 160 gals. **$154.00**

5-X-6207. Complete Outfit. Size of tank, 36 ins. by 8 ft. Capacity of tank, 420 gals. Working capacity, 360 gals. **$180.00**

5-X-6209. Complete Outfit. Size of tank, 36 ins. by 10 ft. Capacity of tank, 525 gals. Working capacity, 360 gals. **$203.00**

Harris Automatic Electric Water Supply System

An outfit that will supply you with plenty of water all-year-round without the least bit of attention. It is an improved type of direct pressure water system, being very simple and absolutely automatic and noiseless in operation.

The "Harris" System is very compact and occupies but very little floor space. It is shipped in two parts and is quickly and easily assembled. "Harris" System can be used where the suction lift does not exceed 15 feet. However, it may be used with suction lifts up to 25 feet if properly primed, as an improved type foot valve is furnished with each outfit.

The "Harris" Water System consists of our "Harris" Electric Water Pump, Pressure Controller and Automatic Electric Switch, 40 gallon Galvanized Expansion Tank complete with gauge glass and Automatic Float, Pressure Gauge, Drain Cock, Air Vent Valve, and Foot Valve with strainer. It is also equipped with Special Automatic Air Injector.

THE ELECTRIC AUTOMATIC WATER PUMP, as the illustration shows, is very simple, having no troublesome or complicated parts. The pump operates perfectly and is absolutely noiseless. It is operated by a 1-6 H. P. highest grade direct or alternating current motor of induction repulsion type, suitable for starting overload of 200 per cent.

The pump has two vertical air chambers, preventing hammering in the pipes. The automatic belt tightener keeps the belt tight and prevents it from slipping, so there is no lost motion; friction and wear are reduced to a minimum. The piston, cylinder and valve seats are solid bronze. The two valves operate and seat perfectly and are noiseless. The pumping capacity is 150 gallons per hour. The motor regularly furnished will provide pressure up to 35 pounds. If a greater pressure is required a larger motor must be ordered.

On pneumatic water systems the water is forced out of a tank by compressed air, and it is necessary to keep the proper amount of air in the tank. Naturally some air is pumped in with the water, but this is gradually absorbed by the water. To replenish the air supply, most manufacturers use a device, attached to the pump but frequently making too much air in the tank which must be relieved. With our Special Automatic Air Injector, we maintain the proper proportion of air in the tank, without attention, always working properly and is so simple that there is no possible chance of getting out of order.

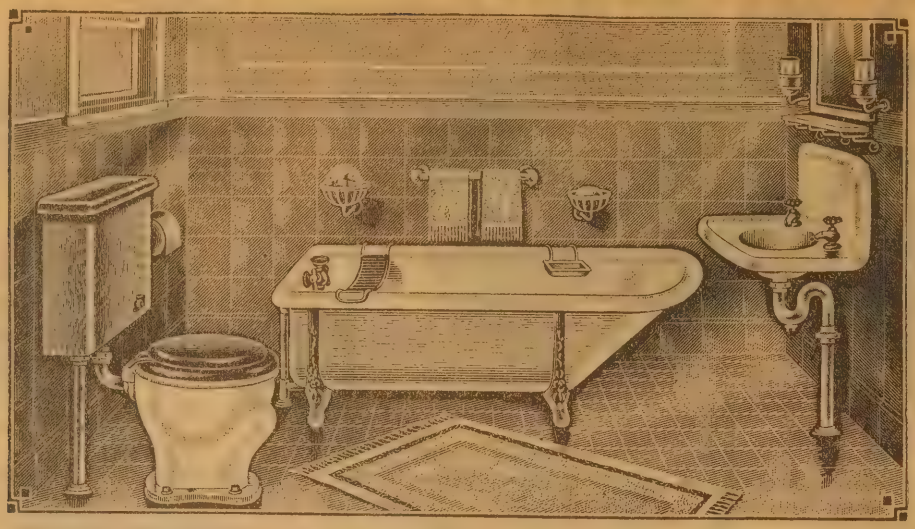
The Air Injector is operated by water from the pump and forces air into the tank through a separate air line. It is automatically controlled by a float in the gauge glass which in connection with float, automatically opens a valve which forces the air into the tank.

The Automatic Controller and Electric Switch Automatically stops the motor when desired pressure is pumped into tank and automatically starts it after a certain amount of water is used. The Automatic Electric Switch and Pressure Controller is a durable combination, mounted on a slate panel with knife switch which is mounted on a wood panel.

The "Harris" Automatic Electric Water Supply System, complete as illustrated.
5-X-25. Price..... **Prices on Application**

"Regal" Bath Room Combination

$57.00



Dependable Quality

This bathroom combination has been assembled for those wishing a dependable, inexpensive outfit. All of the pieces furnished are guaranteed to be of best quality. Properly designed and proportioned to give your bathroom a neat, trim appearance.

The bath tub is made of heavy galvanized sheet steel smoothly coated on the inside; nicely painted on the outside and tinted with bronze paint. It is capped with a 3-in. wood rim, varnished and nicely finished; equipped with connected waste and overflow and Fuller double bath cock for hot and cold water. Nickel-plated supply pipes to floor. The tub is 5 ft. long.

The closet outfit includes a white vitreous earthenware wash down bowl and is fitted with a highly finished golden oak tank lined with heavy copper. Seat and cover are attached with nickel-plated off-set hinges and are furnished to match the tank. Fitted complete with nickel-plated supply pipe and elbow.

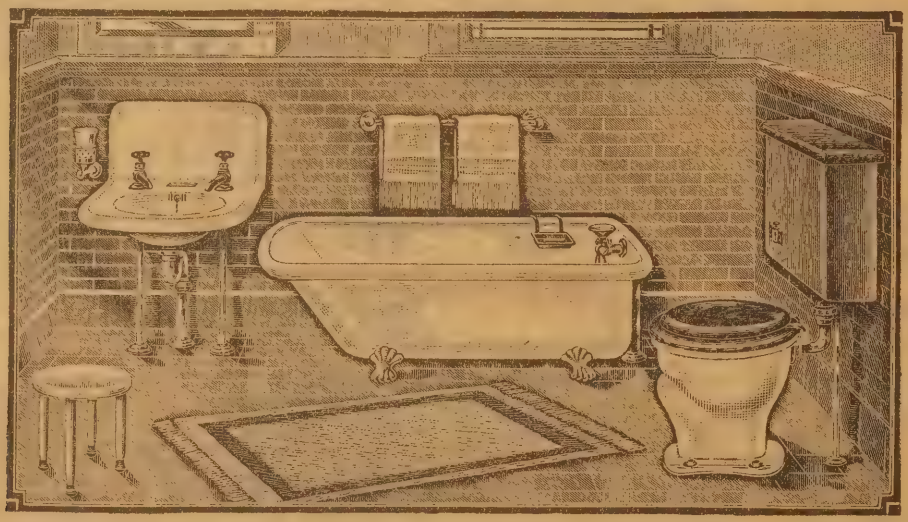
The lavatory furnished is coated with white porcelain enamel; measures 17 in. x 19 in. with 6 in. back. It is furnished with nickel-plated "S" trap and nickel-plated compression faucets indexed for hot and cold water; complete with nickel-plated chain and rubber stopper, attached to wall with concealed hangers.

5-X-626. Regal Bathroom combination complete as described with lead pipe connections..... **$57.00**

5-X-627. Regal Bathroom combination complete as described for iron pipe connections..... **$57.50**

"Majestic" Bath Room Combination

$83.00



Attractive Design

Here is a bathroom combination that offers very unusual value at a remarkably low price. Every piece and part furnished is strictly "A" grade and guaranteed in every way to give you the satisfaction you have a right to expect. We have assembled this outfit from articles secured by us in numerous big purchases and are sharing the money savings we realize with our customers.

The bath tub is cast in one-piece and coated with white porcelain enamel; measures 5 ft. long and 30 in. wide; made with 3 in. roll rim. Finest quality fittings are included with the tub consisting of heavy nickel-plated Fuller double bath cock indexed for hot and cold water, nickel-plated connected waste and overflow and supply pipes.

The closet outfit is an improved low down pattern equipped with a white vitreous earthenware bowl, wash down pattern. Closet tank is made of golden oak perfectly fitted and highly finished; lined with heavy copper. The closet seat and cover are attached with nickel-plated off-set hinges and are finished to match the tank. Fitted with nickel-plated elbow and supply pipe.

The lavatory furnished with this combination is made of best cast iron smoothly and heavily coated with white porcelain enamel; measures 18 in. x 21 in. with 8 in. back and "D" pattern bowl size 10 in. x 14 in.; neat roll rim furnished complete with two nickel-plated compression basin cocks with china tops marked "hot" and "cold"; nickel-plated chain and rubber stopper; nickel-plated 3/8 in. supply pipes and nickel-plated "S" trap to floor. Attaches to wall with concealed hangers.

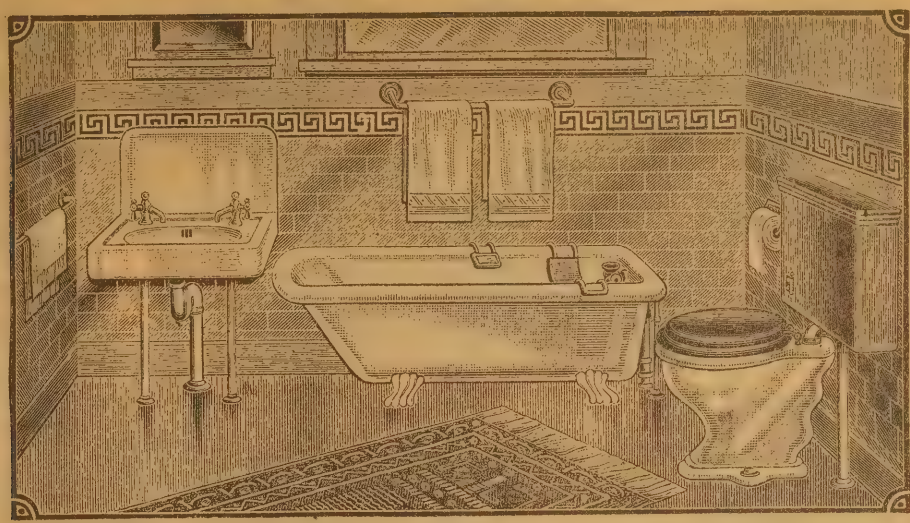
5-X-37. Majestic Bathroom combination complete as described for lead pipe connections..... **$83.00**

5-X-39. Majestic Bathroom combination complete as described for iron pipe connections..... **$84.50**

Shipped complete from our Chicago warehouse.

"Empress" Bath Room Combination

Wholesome Value



$97.00

This elegant outfit is designed for those who wish an extra fine bathroom equipment, neat of design and splendid in quality. The three pieces and all fittings to the last detail have been carefully chosen and embodied in a combination suited to the finest home.

The bath tub measures 5 ft. long and 30 in. wide and is made with a 3 in. roll rim. Coated on the inside and over the rim with white porcelain enamel. It is furnished complete with nickel-plated Fuller double bath cock with handles indexed "hot and cold"; nickel-plated connected waste and overflow, supply pipes, chain and rubber stopper.

The closet outfit is an improved low down design furnished with Syphon jet white vitreous earthenware bowl. The oak seat and cover are attached with nickel-plated off-set hinges. The oak closet tank matches the seat and cover in finish. It is fitted with best trimmings and is perfect in action. Lined throughout with heavy copper. Nickel-plated off-set **and supply pipe.**

The one-piece lavatory is heavily coated with white porcelain enamel and is made in deep apron style. Measures 18 in. x 24 in. with 10 in. back and "D" pattern bowl size 11 in. x 14 in. Fitted with nickel-plated faucets with handles indexed "hot and cold." Nickel-plated supply pipes and "S" trap to floor.

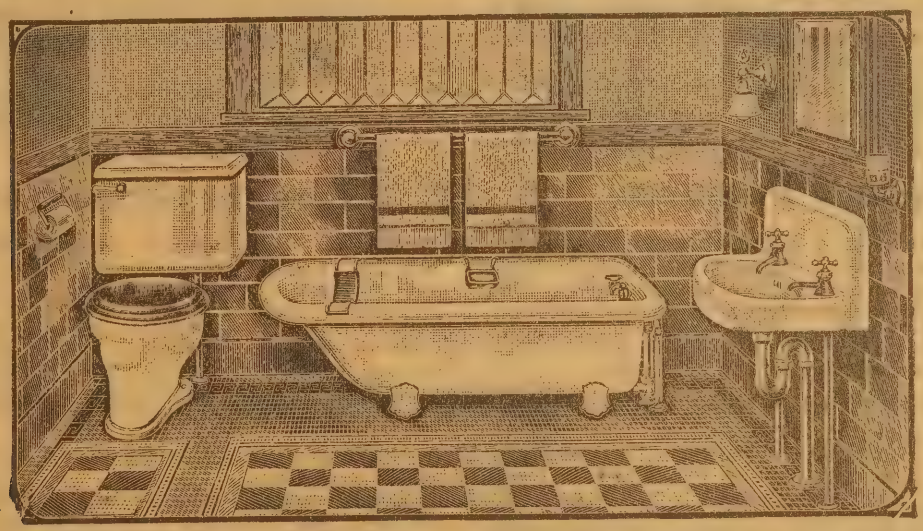
5-X-560. Empress Bathroom combination complete as described for lead pipe connections..... $97.00

5-X-580. Empress Bathroom combination complete as described for iron pipe connections..... $98.50

Shipped complete from Chicago warehouse.

"Countess" Bath Room Combination

Very Neat Appearing



$92.00

This desirable bathroom outfit embodies all features of modern plumbing. It is offered to meet the demand for an outfit of very select quality and perfect design. Nothing has been spared in selecting all pieces and best fittings that can possibly be furnished at our big economical prices.

The bath tub furnished is 5 ft. long and 30 in. wide; massive and well proportioned. Heavily coated on the inside and over the 3-in. roll rim with white porcelain enamel. Fitted with nickel-plated Fuller double bath cock indexed for hot and cold water; nickel-plated connected waste and overflow and supply pipes.

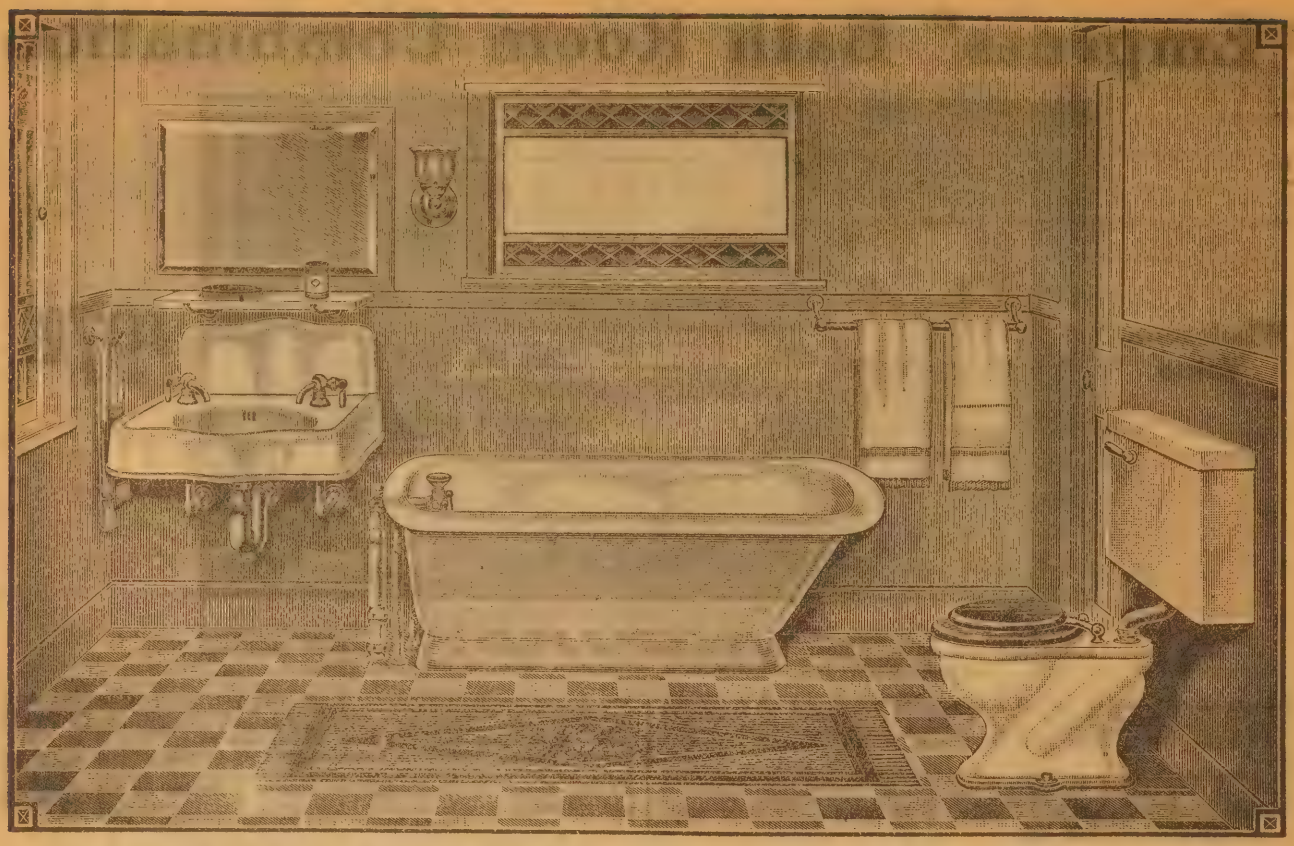
The closet outfit includes an improved wash down type vitreous earthenware bowl and plain neat white vitreous earthenware tank; fitted with Douglas pattern perfect acting valve. All tank fittings are made of heavy brass and copper; operated with china lever in front. The closet seat and cover are highly finished in mahogany and attached to the bowl with nickel-plated off-set hinges.

The deep apron lavatory is coated with white porcelain enamel and measures 18 in. x 21 in. with 8-in. back and "D" pattern bowl size 10½ in. x 14½ in. Fitted with two nickel-plated compression faucets with china tops indexed for hot and cold water. Nickel plated 1¼ in. "S" trap to floor and ⅜ in. nickel plated supply pipes.

5-X-65. Countess Bathroom combination complete as described for lead pipe connections..... $92.00

5-X-67. Countess Bathroom combination complete as described for iron pipe connections..... $93.50

Shipped from our Chicago warehouse.



"Royal" Bath Room Combination $127

ASSEMBLED with utmost care to embody every requirement necessary to furnish a bathroom outfit suitable for the finest home. All improvements and up-to-date features are found in this combination; still, we are about to place it before our customers at a comparatively low price. You will not only be impressed with the design, finish and quality of all pieces furnished, but surprised with the quality of all fittings.

Special Features

Most prominent of all the desirable features of this combination is the massively designed bath tub with pedestal base. The tub sets flush all around on the floor and eliminates the old-fashioned leg base so difficult to clean under. The shapely serpentine deep apron lavatory, the plainly designed highly polished white vitreous earthenware tank and improved syphon jet closet are distinctive features that will meet with your highest approval.

The pedestal base bath tub is coated on the inside and over the 3 in. roll rim with white porcelain enamel. Measures 5 ft. long and 30 in. wide; the exterior of the tub is painted and may be painted to match the walls of your bathroom. It is fitted with nickel-plated double bath cock with handles indexed for hot and cold water. In place of the ordinary chain and stopper, we furnish the desirable Roman or lifting waste; nickel-plated supply pipes to floor. The closet outfit consists of a white vitreous earthenware tank fitted with heavy brass and copper interior trimmings. Perfect action; operated by a slight push of the white china handle.

Elegant Appearance

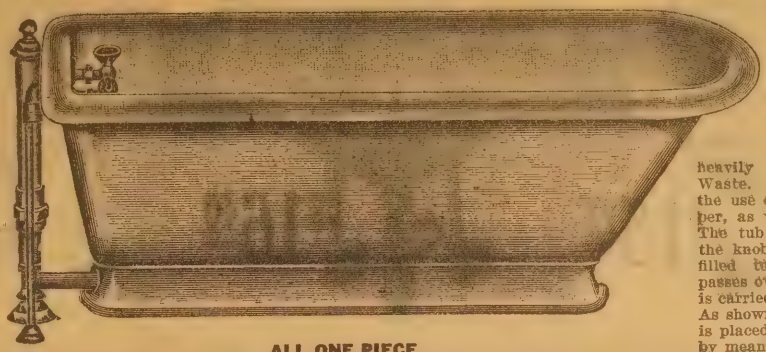
Syphon jet white vitreous earthenware bowl, highly polished. Finely finished seat and cover in mahogany; attaches to the bowl with nickel-plated offset hinges producing a striking contrast to the white tank and bowl. The lavatory measures 18 in. x 24 in. It is unusually attractive in design with shapely serpentine deep apron front and 10 in. back. Fitted with Fuller faucets with china handles indexed for hot and cold water. Nickel-plated supply pipes and "P" trap to wall. Nickel-plated wall flanges. 5-X-74. Royal bathroom combination complete as described for iron pipe connections..... **$127.00**

Picture this beautiful outfit in your own bathroom. Think of the elegant appearance it will present and the convenience it will add to the most important, most used room in your home. Here is an outfit whose general appearance is one of massiveness; yet good taste is displayed everywhere. The high grade, heavily nickel-plated faucets, supply pipes and all fittings which are furnished emphasize the splendid quality of this combination to the last detail.

We are prepared to ship these outfits direct to you from our warehouse. All outfits are carefully assembled, inspected and tested before shipment. Guaranteed to give complete and lasting satisfaction or your money back.

HIGHEST GRADE PEDESTAL BATH TUB WHITE ENAMELED INSIDE AND OUTSIDE

Our Premier Bath Tub We feature this tub as the finest and most elegant Tub that can be manufactured and sold at the prices indicated. It meets the demands of the exacting buyer. Our prices place it within reach of all who appreciate quality and superior finish. Besides the graceful Pedestal Base, the distinguishing feature of this Tub is the Special Hand Finished Exterior, giving bath room an appearance of elegance and cleanliness impossible to obtain with ordinary bath tub.



ALL ONE PIECE

PEDESTAL BATH TUB. White Porcelain; enameled inside and outside; complete as described.

Order No.	Size	Weight	Price
5-X-250.	4½ ft.	350 lbs.	$71.50
5-X-252.	5 ft.	400 lbs.	71.75
5-X-254.	5½ ft.	450 lbs.	73.75

PEDESTAL BATH TUB, complete as described, with painted base and exterior.

Order No.	Size	Weight	Price
5-X-251.	4½ ft.	350 lbs.	$53.25
5-X-253.	5 ft.	400 lbs.	54.75
5-X-255.	5½ ft.	450 lbs.	59.25

Material The finish on this Tub shows the extreme care exercised in its manufacture. Only the very highest grade of cast iron is used in casting. **Enameling process is so carefully done that it requires two weeks to prepare a tub** for shipment. An extra double heavy coating of the very finest white porcelain enamel is baked on the inside of these tubs to give it a **Superior High Finish.** Absolutely free from flaws or defects of any nature.

Fittings Tub is furnished complete with all necessary fittings above floor. These consist of two half-inch nickel plated offset supply pipes; extra heavy No. 4½ Fuller pattern combination bath cock indexed for hot and cold water, with Jewel Cup and special shampoo connection; and heavily nickel-plated Roman or Standing Waste. This Roman Waste dispenses with the use of old style chain and rubber stopper, as well as ordinary overflow strainer. The tub is emptied by merely pulling up the knob of the standing waste and when filled to overflowing, the excess water passes over the edge of the inner tube, and is carried away inside of the Roman Waste. As shown in the illustration, Roman Waste is placed outside of tub, and is made rigid by means of a nickel plated collar and bolt attached to a nickel plated flasher placed at the same point where the overflow strainer is attached on ordinary tubs. All fittings are made extra heavy, strong and substantial, so that the durability of this Premier Bath Tub may be placed absolutely beyond question.

Shipment These Tubs are shipped directly to customers from our factory in Southern Wisconsin, by this means assuring minimum amount of handling of fixtures and tub; while, of course, under our broad and binding guarantee, you run no risk of any kind, because safe delivery is always guaranteed. This extreme care exercised in packing and shipment is intended to protect you against all possibility of disappointment or delay incident to damage in transit.

GUARANTEED "A" GRADE ROLL RIM PORCELAIN ENAMELED BATH TUB

These tubs are guaranteed "A" grade and perfect workmanship. Made of the best grade of gray cast iron, heavily coated with white porcelain enamel. These tubs are 30 inches wide, heavy 3-inch roll rim, and can be furnished in lengths from 4½' to 6' long, as quoted below:

Order No.	5-X-103	5-X-105	5-X-107	5-X-109
Length	4½ ft.	5 ft.	5½ ft.	6 ft.
Appr. Wt.	250 lbs.	300 lbs.	350 lbs.	400 lbs.
Price	$31.50	$31.60	$35.25	$44.25

Prices above do not include fittings.

Guaranteed perfect "A" quality bath tub, with nickel plated fittings above floor line. 30 inches wide, 3-inch roll rim; lengths from 4½ to 6 foot. Fitted with nickel plated double bath cock, indexed for hot and cold water, nickel plated connected waste and overflow, nickel plated chain and rubber stopper, two nickel plated supply pipes, and nickel plated floor flange. Price complete with fittings for lead pipe connections. **If iron pipe connections are wanted, add 75c to the prices.**

Order No.	5-X-203	5-X-205	5-X-207	5-X-209
Length	4½ ft.	5 ft.	5½ ft.	6 ft.
Appr. Wt.	250 lbs.	300 lbs.	350 lbs.	400 lbs.
Price	$41.75	$41.85	$45.50	$54.50

WHITE PORCELAIN BATH TUB WITH COMBINATION BATH TRAP WASTE AND OVERFLOW

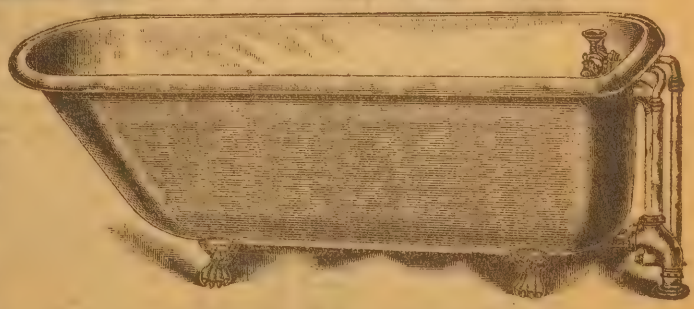
You will note from illustration the special feature of this Tub is the heavily nickel plated bath trap connected above floor directly to nickel plated waste and overflow pipes from Tub.

Dimensions The Tubs are full 30 inches in width, with a massive 3 inch roll rim. Height of Tub on legs 23 inches. Depth inside 17 inches.

Fittings Each Tub is furnished complete as illustrated. Fittings consist of one nickel plated No. 4½ Fuller pattern combination bath faucet, with jewel cup, indexed for "Hot" and "Cold" water and special shampoo connection. Nickel-plated connected waste and overflow with patent trap above floor, especially designed for high grade Outfits. The trap on this connected waste and overflow is made of heavy cast brass, with clean-out plug and is heavily nickel-plated all over. The Tub has two nickel-plated ½ inch off-set supply pipes with nickel-plated floor flange. Has nickel-plated chain and rubber stopper. You will note the above Tub is complete with all trimmings necessary above the floor.

PRICE OF BATH TUB COMPLETE WITH CONNECTIONS FOR LEAD PIPE.

Order No.	5-X-221	5-X-223	5-X-225	5-X-227
Length	4½ ft.	5 ft.	5½ ft.	6 ft.
Appr. Wt.	250 lbs.	300 lbs.	350 lbs.	400 lbs.
Price	$44.75	$44.85	$48.50	$57.50



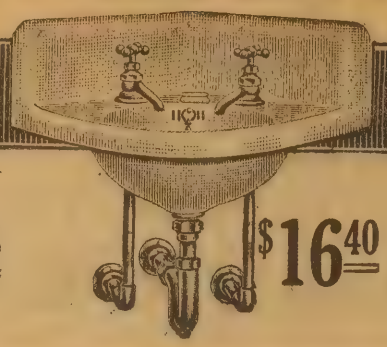
Be sure to add 75c if you desire iron pipe connections.

White Porcelain Enameled Lavatories

Size of slab 17 in. x 19 in.; bowl 10½ in. x 13½ in.; height of back 6 in.

White porcelain enameled one-piece half circled lavatory with "D" pattern bowl. Easily and quickly attached with concealed wall hangers furnished. Fitted complete with low down compression faucets with china indexed tops marked "hot and cold." Nickel-plated 1¼ in. "P" trap, supply pipes and flanges to wall. Nickel-plated chain and rubber stopper.

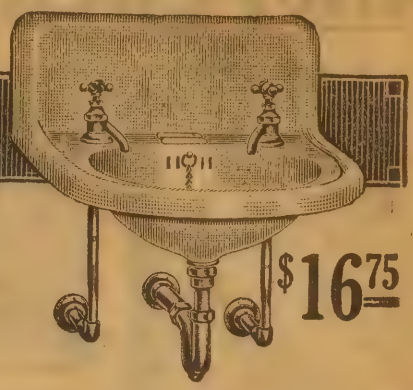
5-X-401. Complete as described, with lead pipe connections..... **$15.25**
5-X-403. Complete as described, with iron pipe connections..... **$15.75**



Length on sides 16¾ in.; bowl 10½ in. x 13½ in.; height of back 6 in.

White porcelain enameled one-piece roll rim corner lavatory with "D" pattern bowl. Easily attached to wall with concealed wall hangers furnished. Fitted complete with nickel-plated low down compression faucets with china indexed tops marked "hot and cold." Nickel-plated 1¼ in. "P" trap, supply pipes and flanges to wall. Nickel-plated chain and rubber stopper.

5-X-601. Complete as described, with lead pipe connections..... **$16.40**
5-X-603. Complete as described, with iron pipe connections..... **$16.90**



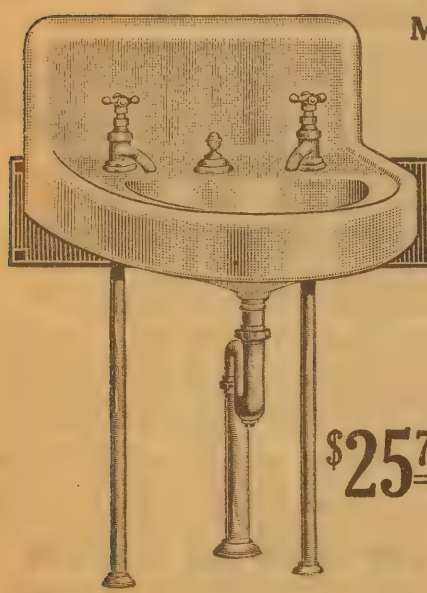
Size of slab 18 in. x 21 in.; bowl 10½ in. x 14½ in.; height of back 8 in.

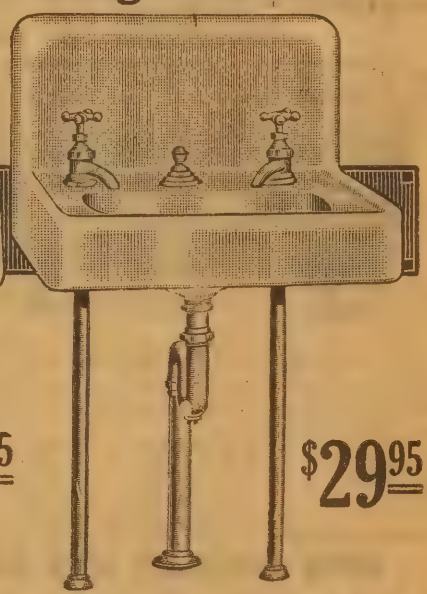
White porcelain enameled one-piece roll rim half circled lavatory with "D" pattern bowl. Easily hung with concealed wall hangers furnished. Fitted complete with two low down compression faucets with china indexed tops marked "hot and cold"; nickel plated 1¼ in. "P" trap, supply pipes and flanges to wall. Nickel-plated chain and rubber stopper.

5-X-480. Complete as described, with lead pipe connections..... **$16.75**
5-X-482. Complete as described, with iron pipe connections..... **$17.25**

The Product of America's Leading Makers

Massive Deep Apron Pedestal Lavatory





Size of slab 18 in. x 21 in.; bowl 10½ in. x 14½ in.; height of back 8 in.

White porcelain enameled one-piece half circled deep apron lavatory with "D" pattern bowl. Quickly and easily attached to wall with concealed wall hangers furnished. Fitted complete with two low down compression faucets with china indexed tops marked "hot and cold." Nickel-plated 1¼ in. "S" trap, supply pipes and flanges to floor. Nickel-plated lifting waste with china index.

5-X-421. Complete as described, with lead pipe connections..... **$25.75**
5-X-423. Complete as described, with iron pipe connections..... **$26.25**

Size of slab 20 in. x 24 in.; oval bowl 11 x 15 in.; height of lavatory 31 in.

White porcelain enameled one-piece pedestal lavatory with oval bowl. Supported on a massive, properly proportioned white enameled pedestal. Fitted complete with nickel-plated model lifting waste with china knob and two fuller faucets with china handles indexed "hot and cold." Nickel-plated offset air chamber, supply pipes and 1¼ in. "P" trap to wall. This is an impressive lavatory and will give your bathroom a rich appearance.

5-X-98. Complete as described, with iron pipe connections..... **$39.95**

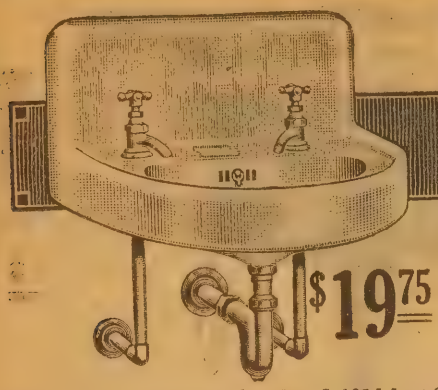
Size of slab 18 in. x 24 in.; bowl 11 in. x 15 in.; height of back 10 in.

White porcelain enameled one-piece square deep apron lavatory with "D" pattern bowl quickly and easily attached to wall with concealed wall hangers furnished. Fitted complete with nickel-plated model lifting waste with china index and two compression faucets with china indexed tops, marked "hot and cold." Nickel-plated 1¼ in. "S" trap, supply pipe and flanges to floor.

5-X-441. Complete as described, with lead pipe connections..... **$29.95**
5-X-443. Complete as described, with iron pipe connections..... **$30.45**

Get Your Copy of Our Free Furniture Book!

Priced Unusually Low for Big Economy



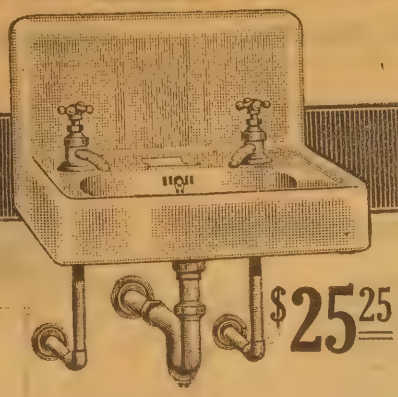
$19.75

Size of slab 18 in. x 21 in.; bowl 10½ in. x 14½ in.; height of back 8 in.

White porcelain enameled one-piece half-circled deep apron lavatory with "D" pattern bowl. Quickly and easily attached to wall with concealed wall hangers furnished. Fitted complete with two nickel-plated low down compression faucets with china index tops marked "hot and cold." 1¼ in. nickel-plated "P" trap, supply pipe and flanges to wall. Nickel-plated chain and rubber stopper.

5-X-411. Complete as described, for lead pipe connections..... **$19.75**

5-X-413. Complete as described, for iron pipe connections..... **$20.00**



$25.25

Size of slab 18 in. x 24 in.; bowl 11 in. x 15 in.; height of back 10 in.

White porcelain enameled one-piece square deep apron lavatory with "D" pattern bowl. Easily attached to wall with concealed wall hangers furnished. Fitted complete with two nickel-plated compression faucets with china indexed tops marked "hot and cold." 1¼ in. nickel-plated "P" trap, supply pipe and flanges to wall. Nickel-plated chain and rubber stopper.

5-X-311. Complete as described, for lead pipe connections..... **$25.25**

5-X-313. Complete as described, for iron pipe connections..... **$25.75**

$25.50

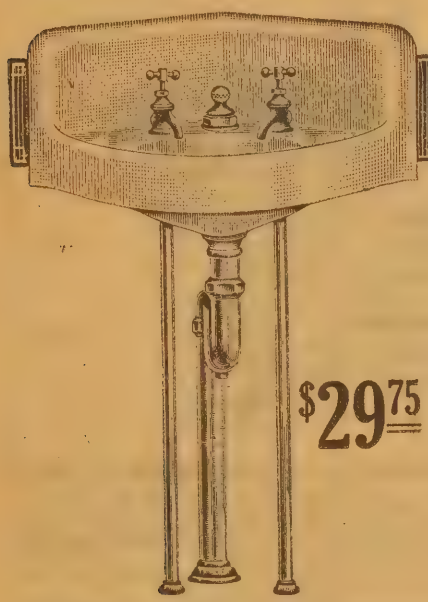
Size of slab 18 in. x 24 in.; bowl 11 in. x 15 in.; height of back 10 in.

White porcelain enameled one-piece shapely serpentine deep apron lavatory with "D" pattern bowl. Easily attached to wall with concealed wall hangers furnished. Fitted complete with two nickel-plated compression faucets with china indexed tops marked "hot and cold." 1¼ in. nickel-plated "P" trap, supply pipe and flanges to wall. Nickel-plated chain and rubber stopper.

5-X-492. Complete as described, for lead pipe connections..... **$25.50**

5-X-494. Complete as described, for iron pipe connections..... **$26.00**

Guaranteed in Every Way to Completely Satisfy



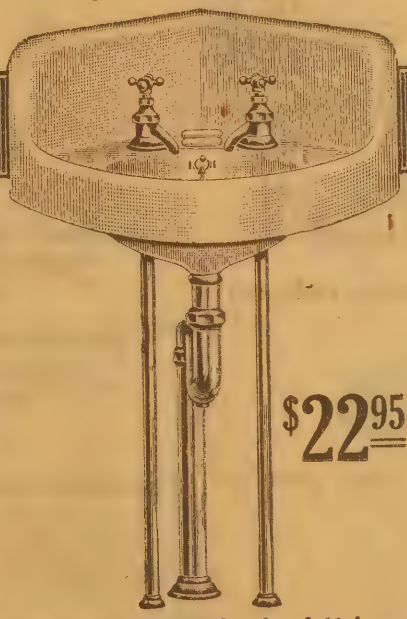
$29.75

Length on sides 20 in.; bowl 11 in. x 15 in.; height of back 8 in.

White porcelain enameled one-piece deep apron corner lavatory with "D" pattern bowl. Supported on concealed wall hangers which are furnished. Fitted complete with nickel-plated model waste with china index and two compression faucets with china indexed tops marked "hot and cold." 1¼ in. nickel-plated "S" trap, supply pipe and flanges to floor.

5-X-641. Complete as described, for lead pipe connections..... **$29.75**

5-X-643. Complete as described, for iron pipe connections..... **$30.25**



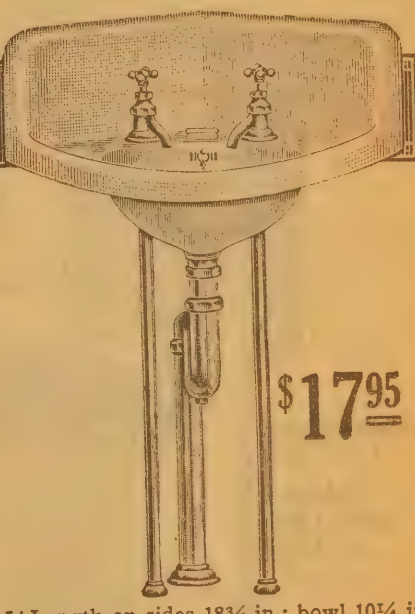
$22.95

Length on sides 20 in.; bowl 11 in. x 15 in.; height of back 8 in.

White porcelain enameled one-piece deep apron corner lavatory with "D" pattern bowl, quickly and easily attached to wall with concealed wall hangers furnished. Fitted complete with nickel-plated compression faucets with china indexed tops marked "hot and cold." Nickel-plated 1¼ in. "S" trap, supply pipe and flanges to floor. Nickel-plated chain and rubber stopper.

5-X-621. Complete as described, for lead pipe connections..... **$22.95**

5-X-623. Complete as described, for iron pipe connections..... **$23.45**



$17.95

Length on sides 18¾ in.; bowl 10¼ in. x 14½ in.; height of back 6 in.

White porcelain enameled one-piece roll rim corner lavatory with "D" pattern bowl. Supported on concealed wall hangers furnished. Fitted complete with nickel-plated low down compression faucets with china indexed tops marked "hot and cold," nickel-plated 1¼ in. "S" trap, supply pipe and flanges to floor. Nickel-plated chain and rubber stopper.

5-X-611. Complete as described, for lead pipe connections..... **$17.95**

5-X-613. Complete as described, for iron pipe connections..... **$18.45**

High and Low Tank Closet Outfits

Wash Down Type Closet Outfit

$27.50

Complete as Shown

Copper Lined Golden Oak Tank

Seat and Cover Finished to Match

Low tank closet outfit complete of dependable quality. Includes high grade tank finished in either polished golden oak or rich mahogany as desired; lined with heavy copper and fitted with rubber ball valve, which is operated by a push button; best interior fittings. Smooth white vitreous earthenware wash down type bowl. Seat and cover finished to match tank; nickel-plated elbow and supply pipe.

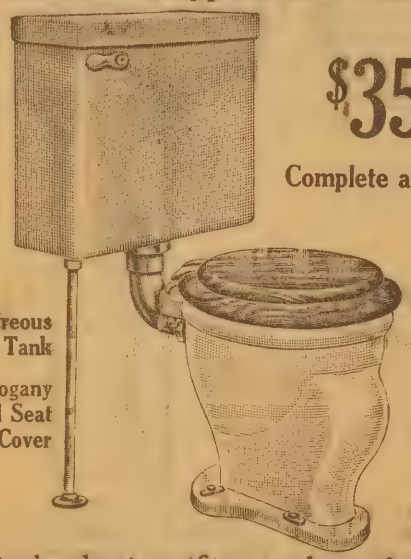
5-X-801. Complete as described with seat and tank finished in golden oak; for lead pipe connections **$27.50**

5-X-802. Complete as described with seat and tank finished in rich mahogany; for lead pipe connections **$28.75**

5-X-803. Complete as described with seat and tank finished in golden oak; for iron pipe connections **$27.75**

5-X-804. Complete as described with seat and tank finished in rich mahogany; for iron pipe connections **$29.00**

Wash Down Type Closet Outfit



$35.00

Complete as Shown

White Vitreous China Tank

Mahogany Finished Seat and Cover

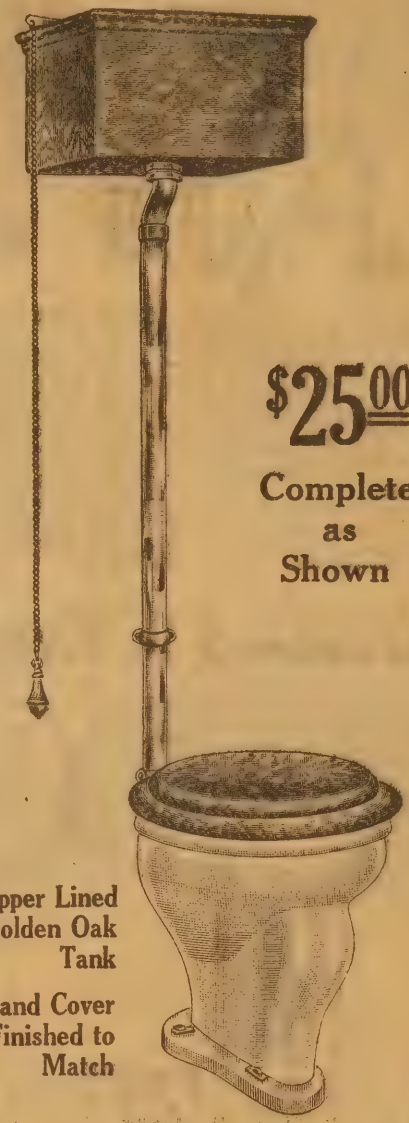
Low tank closet outfit complete of excellent quality. Includes handsome white vitreous china tank with best interior fittings to insure a strong positive flush at all times; operated by white china lever. Shapely white vitreous earthenware wash down closet bowl glazed inside and out. Seat and cover finished in rich mahogany attached to bowl with heavy nickel-plated offset hinges. Nickel-plated elbow and supply pipe.

5-X-1001. Complete as described with rich mahogany seat and cover; for lead pipe connections.... **$35.00**

5-X-1003. Complete as described with seat and cover finished in rich mahogany; for iron pipe connections **$35.25**

Wash Down Type Closet Outfit

Top or Bottom Supply



$25.00

Complete as Shown

Copper Lined Golden Oak Tank

Seat and Cover Finished to Match

Top supply high tank closet outfit complete offering substantial value. Includes highly finished golden oak tank lined with heavy copper; fitted with an improved valve insuring a strong flush; operated by nickel-plated chain. White vitreous earthenware wash down type closet bowl of neat pattern. Golden oak seat and cover finished to match tank attached to bowl with heavy nickel-plated offset hinges. one and a quarter inch nickel-plated flush pipe and 1½ inch N. P. elbow, to connect flush pipe to bowl.

5-X-1101. Complete as described; for lead pipe connections **$25.00**

5-X-1103. Complete as described; for iron pipe connections **$25.25**

Furnished with Bottom Supply High Tank

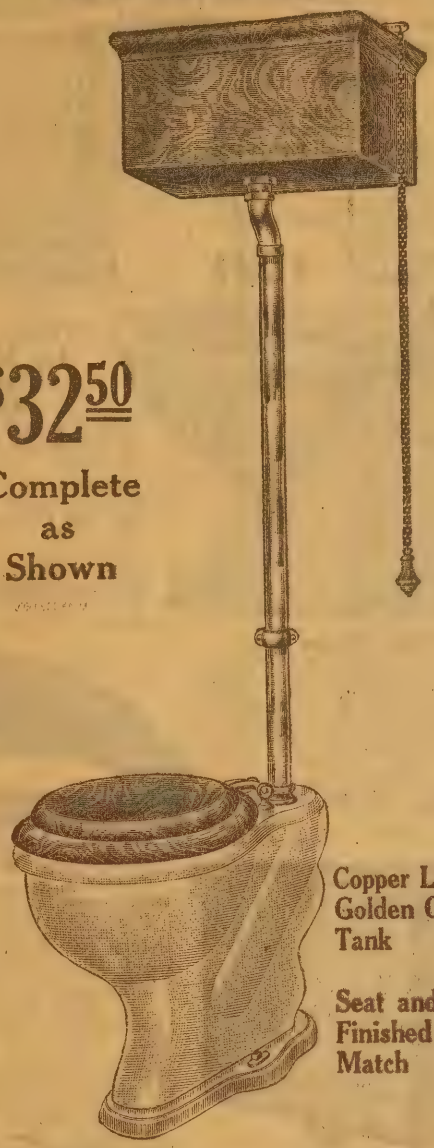
The high tank closet outfit above is also furnished for bottom supply, complete with heavy copper-lined, highly polished golden oak tank, wash down type, white vitreous earthenware closet bowl fitted with seat and cover finished to match tank and equipped with 1¼ in. nickel-plated flush pipe from tank to bowl and ⅝ in. nickel-plated supply pipe from tank to floor.

5-X-1114. Complete as described for bottom supply with lead pipe connections **$26.50**

5-X-1115. Complete as described for bottom supply with iron pipe connections **$26.75**

Priced Very Low for Big Economy!

Syphon Jet Type Closet Outfit
Top or Bottom Supply



$32.50

Complete as Shown

Copper Lined Golden Oak Tank

Seat and Cover Finished to Match

Top supply high tank closet outfit complete of improved design. Includes heavy copper lined highly finished golden oak tank equipped with latest improved valve and operated by a nickel-plated chain puller. Latest pattern Syphon jet bowl made of white vitreous earthenware highly glazed both inside and out. Seat and cover in golden oak finished to match the tank and attached to bowl with heavy nickel-plated offset hinges. 1¼ in. nickel-plated flush pipe.

5-X-1201. Complete as described with lead pipe connections **$32.50**

5-X-1203. Complete as described with iron pipe connections **$32.75**

Furnished with Bottom Supply High Tank

The high tank closet outfit above is also furnished for bottom supply, complete with heavy copper lined highly polished golden oak tank. Syphon jet type bowl fitted with seat and cover finished to match tank and equipped with 1¼ in. nickel-plated flush pipe from tank to bowl; ⅝ in. nickel-plated supply pipe from tank to floor.

5-X-1211. Complete as described for bottom supply with lead pipe connections..... **$34.00**

5-X-1215. Complete as described for bottom supply with iron pipe connections..... **$34.25**

Syphon Jet Type Closet Outfit

$35.00

Complete as Shown

Copper Lined Golden Oak Tank

Seat and Cover Finished to Match

Low tank closet outfit complete of improved design. Includes finest tank highly finished in either polished golden oak or rich mahogany; lined with heavy copper and fitted with best improved valve, insuring a strong flush of water with a light touch of the push button. Latest pattern white vitreous earthenware Syphon jet closet bowl. Seat and cover finished to match tank; attached to bowl with heavy nickel-plated offset hinges. Nickel-plated offset and supply pipe.

5-X-811. Complete as described with golden oak tank and seat for lead pipe connections..... **$35.00**

5-X-812. Complete as described with mahogany finished tank and seat for lead pipe connections **$36.00**

5-X-813. Complete as described with golden oak tank and seat for iron pipe connections..... **$35.25**

5-X-814. Complete as described with mahogany finished tank and seat for iron pipe connections **$36.25**

Syphon Jet Type Closet Outfit

$40.00

Complete as Shown

White Vitreous China Tank

Mahogany Finished Seat and Cover

Low tank closet outfit complete of finest quality Includes beautiful highly polished white vitreous earthenware massive square tank; easily kept clean. Fitted with latest improved rubber ball valve flush system made with fittings of heavy brass and copper; positive flush to bowl with light pressure on white china handle. White vitreous earthenware improved Syphon jet bowl glazed both inside and out. Rich mahogany finished seat and cover attached to bowl with heavy nickel-plated offset hinges. Nickel-plated offset and supply pipe.

5-X-1021. Complete as described with lead pipe connections **$40.00**

5-X-1023. Complete as described with iron pipe connections **$40.50**

CLOSET BOWLS FOR LOW TANK OUTFITS

Closet Bowl for Low Tank Outfits

Our latest design wash-down Syphon bowl, is a combination hopper and trap, made of the best grade of Vitreous earthenware, with highly glazed finish, strictly sanitary and easily kept clean, guaranteed A grade.

2-inch spudd for use with low tank outfits. Weight about 50 pounds.

5-X-1301. Wash-down Closet Bowl, complete, as described above, Price **$12.50**

Syphon Jet Bowl for Use With Low Tank Outfits

Illustration shows plain earthenware Syphon Jet Closet Bowl with seat attachment and 2-inch spudd. Bowl is made of finest grade of Vitreous earthenware with highly glazed white finish inside and out. Most sanitary type, easily kept clean, guaranteed A grade. Weight about 60 pounds.

5-X-1303. Price, complete.. **$19.75**

Flat Hinge Closet Seat

This is a high grade Golden Oak or Mahogany finish closet seat. Cover is attached direct to seat with flat heavy brass hinges, nickel-plated. Weight about 15 lbs.

5-X-1309. Flat Hinge Seat complete, as illustrated. Price..... **$3.00**

High Tanks

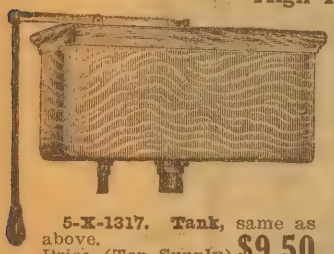
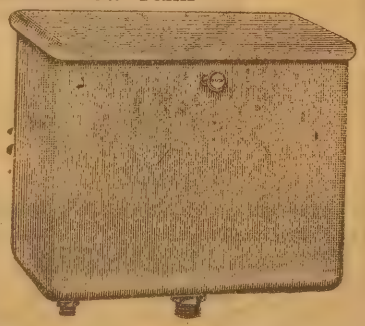


Illustration shows the **latest design in High Tanks** for water closet. Made of the very best quality of material, Golden Oak finish, highly polished, is attached to wall by means of **Concealed Wall Hangers,** doing away with the unsightly brackets. Is furnished with nickel-plated chain and pull. Is lined with heavy sheet copper, has a nickel-plated flush and pipe connections. Weight about 30 lbs.

5-X-1317. Tank, same as above. Price (Top Supply) **$9.50**

5-X-1315. High Tank complete, as shown. Price (Bottom Supply) **$9.50**

Enameled Steel Low Tank



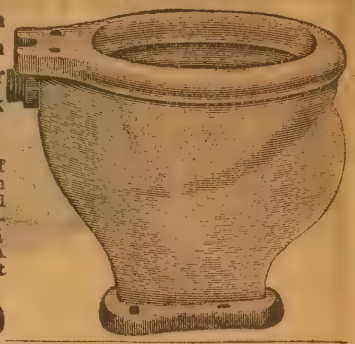
This is the celebrated enameled Steel Tank for use with low-down water closet outfits. It is acknowledged by the Plumbing Experts to be the finest tank ever produced, being absolutely proof against corrosion from water containing alkali, acids, etc. Prevents tank sweating. Outside of tank is heavily coated with White Porcelain Enamel thoroughly baked and giving it a handsome glazed finish and is easily kept clean.

It has a compound ball cock, which is the simplest flushing mechanism on the market, furnished complete with ⅜-inch nickel-plated supply pipe and push button, and nickel-plated outlet connection with floor flange. Weight about 55 lbs.

5-X-1331. Enamel Steel Low-Down Tank, as described above. Price..... **$19.00**

CLOSET BOWLS FOR HIGH TANK OUTFITS

Wash-Down Syphon Bowl, or Combination Hopper and Trap for Use with High Tank Closet



Made of the best grade of Vitreous earthenware with highly glazed finish inside and out, easily kept clean, perfectly sanitary, furnished with 1¼ inch spudd guaranteed A grade quality. Weight about 50 lbs.

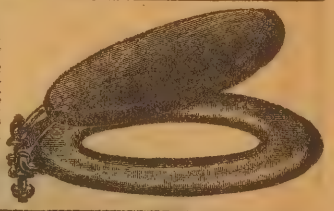
5X-1305. Price, complete.... **$12.50**

Syphon Jet Bowl for Use With High Tank Closet

This is the latest design plain earthenware Syphon Jet closet bowl. Made of Vitreous earthenware with highly glazed finish inside and out furnished with 1¼ inch spudd. Guaranteed A grade and first quality. Weight about 60 lbs.

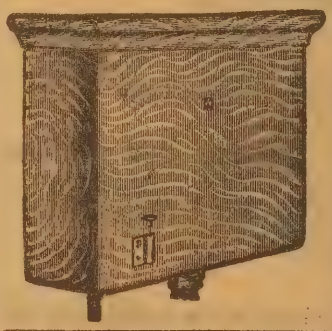
5-X-1307. Syphon Jet Closet Bowl complete, as described. Price. **$19.75**

Off-Set Hinge Seat



Seat is furnished complete, as illustrated. Has a fine Golden Oak or Mahogany finish, highly polished, is furnished complete with nickel-plated off-set hinges, which are made of heavy cast brass. This is the very latest design in closet seats. Weight about 15 lbs.

5-X-1311. Off-Set Hinge Seat complete, as shown. Price, complete..... **$3.50**

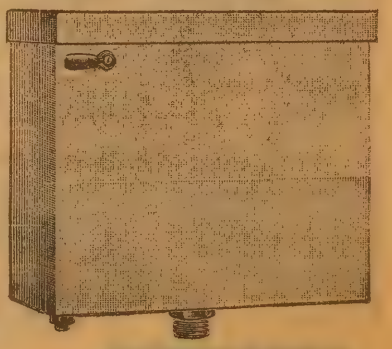


Low-Down Wood Tank

The latest design in low-down wood tanks for use with water closets. Made of the finest quality of materials, has a beautiful Golden Oak finish, highly polished. Has a nickel-plated push button. Fitted complete with Douglas pattern Valve. Lined to the water level with heavy sheet copper, then capped off with heavy galvanized iron strips. Furnished complete with ⅜-inch nickel-plated supply pipe and nickel-plated floor flange. Shipping weight about 45 lbs. 8 gallons.

5-X-1325. Low-Down Wood Tank complete, as described above. Price **$14.75**

White Vitreous China Low-Down Tank



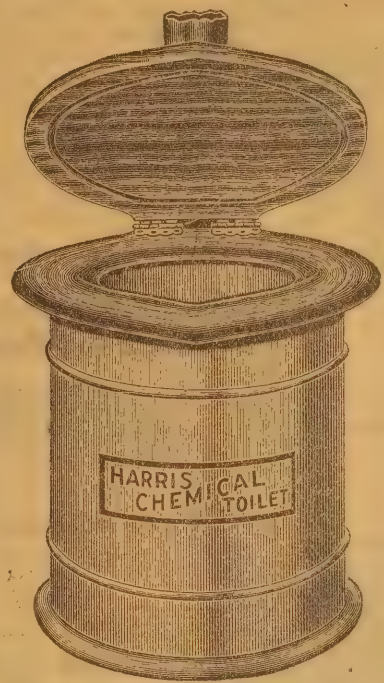
Our Special Improved white vitreous china tank plain front, round corner with improved flat shelf top, and our patent wall attachment is an absolutely no worry tank. There are no linings to contend with on these tanks so they will not leak. No water or chemical action has any effect on these tanks, will not craze or crack and easily cleaned and will look good forever. Tank has latest improved rubber ball valve. All fittings are made of heavy brass and copper. Valve is operated by a china lever in front of tank. Very slight pull releases the valve and causes a strong, positive flush in the bowl. Tank has holes drilled in the back so as to fasten it to the wall, a very easy and simple operation.

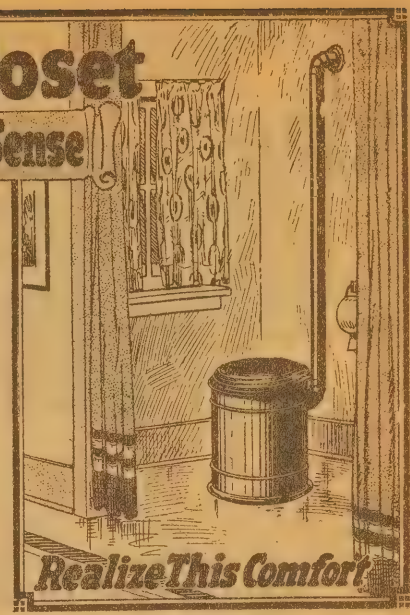
9-X-1336. Price complete as described above and shown in illustration, only **$19.50**

Chemical Indoor Closet

Study This Lesson of Common Sense

$9.95





Better and Different From All Others

The Harris chemical toilet has many exclusive features and important advantages over all others. Made with a regulation shaped closet seat with cover and continuous ventilating system.

You Can Try This Closet For 30 Days

ENTIRELY AT OUR EXPENSE!

We want all of our customers to use the splendid Harris Chemical Toilet in their own homes for thirty days at our expense. In this way you can convince yourself of its superiority over all others and that it is all we claim for it in our guarantee. At the end of thirty days if you are not entirely satisfied, send it back and we will return your money, including the transportation charges you have paid.

Read Our Guarantee!
You Must Be Satisfied!

We Guarantee The Harris Chemical Indoor Closet to be the best and most efficient toilet of its kind offered today—absolutely odorless, sanitary, germ-proof, convenient and practical—finest material and excellent construction throughout exactly as illustrated and described on this page.

HARRIS BROTHERS COMPANY

Every Convenience of the Modern Toilet for the Country, Village and Suburban Home!

Protect your family against the dangers and inconvenience of the outdoor privy—eliminate forever the breeding place of flies and contagious disease germs. You can buy the best chemical indoor closet and save nearly half during this sale. It will prove to be a great home comfort—convenient to every member of the family throughout the year. The Harris Chemical Indoor Toilet is a positive necessity during bad weather, storms, or at night—a God-send during sickness—a protection to morals of your children—a guardian of purity to your drinking water—a clean, sanitary method of sewage disposal—a modern toilet easily within the reach of everyone now.

Detailed Description of the Harris Chemical Toilet

The Harris Chemical Indoor Closet is fitted with the regular shaped closet seat and cover highly finished in birch mahogany. The base and frame work of the outer casing are made of solid cast metal. The outer casing is made of rolled sheet steel which, together with all other metal parts, including 9 feet of 3 in. exhaust pipe, are beautifully enameled in azure blue. The inner recepticle containing the chemical is suspended on lugs. Steady ventilation is assured by means of ventilators leading to the exhaust pipe. This inner recepticle is made of metal, heavily galvanized—will not absorb odors and is unaffected by acids—easy to keep clean. The exhaust pipe can be connected to any chimney flue or may be installed to extend through the roof from the most convenient room. Simply put a cup of chemical and three or four cups of water in the container, and it is ready for use.

5-X-1816 Harris Chemical Indoor Closet, including two elbows, eight lengths of 3-in. pipe, 14 in. long, wall collar, one gallon of Harris guaranteed chemical disinfectant (about 6 months' supply), carefully packed in wood box..... **$9.95**

—EXTRAS—

Harris chemical disinfectant. Per gallon **$2.00**

Roof saddles, each..... 40c
Extra elbows, each..... 25c

Extra exhaust pipe, per 14-in. length..... 25c

HARRIS BROTHERS CO.
26th and Iron Streets, Chicago.

Going to Build? Let us show you how to save money!

Sink Outfits and Accessories

A Splendid Kitchen Sink Outfit

$17.15

This kitchen sink outfit has been assembled especially for the country and suburban home. An important feature is the back outlet in the pump which permits you to force the water to any height of floors above by simply shutting off the faucet. A hose can be attached to the faucet for sprinkling purposes and fire protection.

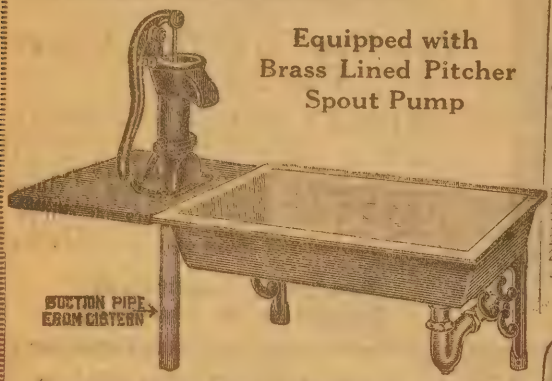
The outfit as illustrated is furnished complete with high grade flat rim cast iron porcelain lined sink fitted with nickel-plated strainer and 1¼ in. lead "P" trap with outlet to wall, fitted for 1¼ in. iron pipe connection. Sink has two cast iron brackets. The high grade force pump is made with 2½ in. brass lined cylinder with air chamber, insuring a steady flow of water; easy to pump. The pump is fitted for 1¼ in. galvanized suction pipe. Back outlet of pump fitted for 1 in. pipe. Pump board not included.

5-X-1621. Kitchen sink outfit complete with sink size 18 in x 30 in. with iron pipe connections **$17.15**

5-X-1623. Kitchen sink outfit complete with sink size 18 in. x 36 in. with iron pipe connections **$19.25**

5-X-1625. Kitchen sink outfit complete with sink size 20 in. x 30 in. with iron pipe connections **$17.85**

Kitchen Sink Outfit

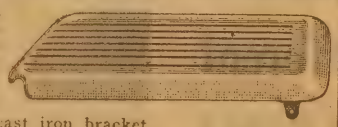


Equipped with Brass Lined Pitcher Spout Pump

This kitchen sink outfit is identically the same as the one above except that we furnish a brass lined pitcher spout pump fitted for 1 in. iron pipe connection.

5-X-1601. Outfit complete with 18 in. x 30 in. sink with iron pipe connection..... **$14.10**
5-X-1604. Outfit complete with 18 in. x 36 in. sink with iron pipe connection..... **$16.15**
5-X-1605. Outfit complete with 20 in. x 30 in. sink with iron pipe connection..... **$14.85**
5-X-1607. Outfit complete with 20 in. x 36 in. sink with iron pipe connection..... **$17.65**
5-X-1609. Outfit complete with 20 in. x 40 in. sink with iron pipe connection..... **$20.75**

White Enameled Drainboards

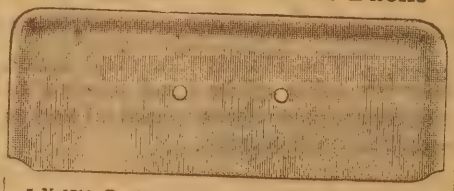


5-X-1780. Interchangeable and can be used on either end of sink. Furnished complete with cast iron bracket.

SIZES AND PRICES

18x18 inches	**$6.00**
18x20 inches	**6.35**
18x24 inches	**6.95**
20x20 inches	**6.65**
20x24 inches	**7.35**

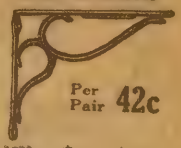
White Enameled Sink Backs



5-X-1718. Designed for use with flat rim sinks drilled for two faucets. Size 12 in. high and 2¼ in. deep.

Size 24 in. long... **$4.80** Size 36 in. long... **$7.10**
Size 30 in. long... **5.20** Size 40 in. long... **8.10**

Sink Brackets



5-X-1723. Cast iron sink brackets of neat design, strong and substantial.
For sinks 18 in. and 16 in., per pair **42c**
For sinks 20 in. and larger, per pair **52c**

Sink Couplings

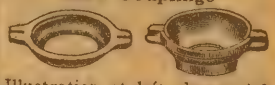


Illustration at left shows sink couplings for lead pipe connections.
Illustration at right shows sink couplings for iron pipe connections.

5-X-1737. Cast iron coupling for lead pipe connections, **10c**
5-X-1739. Cast iron coupling for 1¼ in. and 1½ in. iron pipe connections, each..... **25c**

Sink Strainers

5-X-1727. Nickel-plated sink strainers.
Each **17c**

Sink Plugs

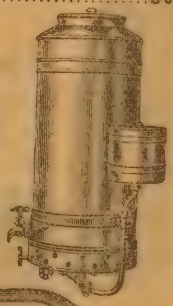
5-X-1729. Furnished complete as illustrated, nickel-plated.
Each **27c**

Sink Bolts

5-X-1733. Screw head bolts for cast iron sinks.
Each **3c**

Excellent Bath Outfit

$22.85



This outfit is just the thing for the home without running water. It is composed of a high grade nickel-plated gasoline water heater with copper bottom and water coil. Water drawn from the tank passes through the receptacles giving hot water in an instant. Sufficient water for your bath can be heated in fifteen minutes. Tub furnished is made of heavy steel smoothly coated on the inside and capped with nicely finished oak top rim. Cast iron legs nicely ornamented. Tub is equipped with connected waste and overflow and fitted with 1¼ in. pipe.

5-X-1811. Bath outfit complete as described with tub 4½ ft. long for iron pipe connection..... **$22.85**
5-X-1813. Bath outfit complete as described with tub 5 ft. long for iron pipe connection..... **$23.40**

SEE EXTRAS BELOW

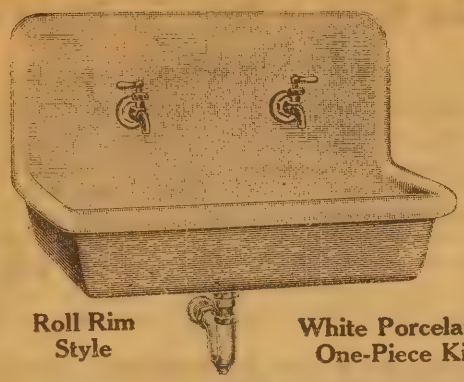
If Bath Tub Only Is Wanted

We can furnish the tub only, made of heavy sheet steel smoothly coated on the inside and capped with nicely finished oak top rim, equipped with connected waste and overflow and fitted for 1¼ in. pipe.

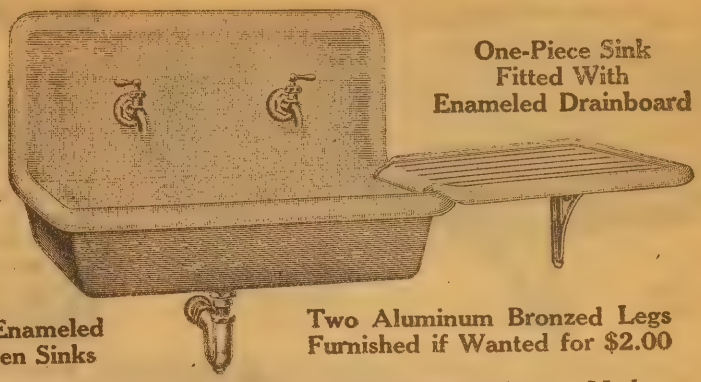
5-X-1801. Tub only, 4 ft. 6 in. long.
Each **$10.85**
5-X-1803. Tub only, 5 ft. long, ea.. **$11.40**
5-X-1805. Tub only, 5 ft. 6 in. long.
Each **$11.70**
5-X-1807. Tub only, 6 ft. long, ea.. **$12.85**

If Fuller double bath cock to fit tub is wanted, add $3.30. If nickel-plated ½ inch supplies for iron pipe connections are wanted, add, per pair, $1.80.

Kitchen Sinks at Unusual Savings!



Roll Rim Style



One-Piece Sink Fitted With Enameled Drainboard

White Porcelain Enameled One-Piece Kitchen Sinks

Two Aluminum Bronzed Legs Furnished if Wanted for $2.00

Excellent kitchen sink furnished with or without drain board as illustrated above. Made of smooth gray iron heavily coated on the inside and over the rim and back with white porcelain enamel baked on to the highest degree of hardness, giving a highly polished finish; very neat, attractive and easy to clean. Furnished complete as shown with two nickel-plated ½ in. flanged plain faucets, nickel-plated sink strainer and 1½ in. lead "P" trap with outlet to wall. Sink is attached to wall with concealed wall hangers easy and simple to erect.

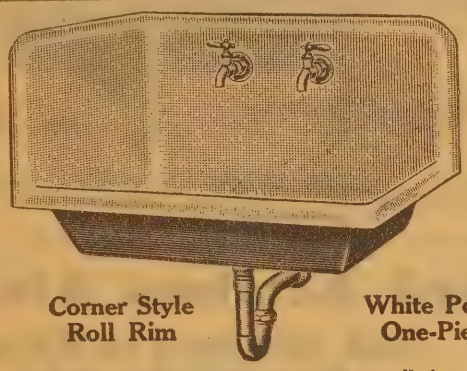
Prices Without Drainboard

Number.	Size of Sink.	Price.
5-X-1631.	18 in. x 24 in.	$18.00
5-X-1632.	20 in. x 24 in.	21.25
5-X-1635.	18 in. x 30 in.	20.75
5-X-1639.	20 in. x 30 in.	21.80
5-X-1643.	20 in. x 36 in.	24.25

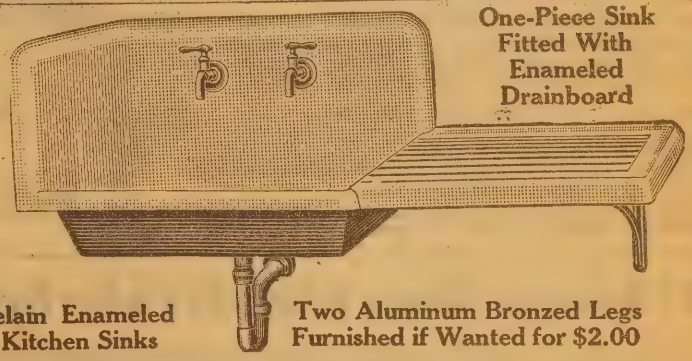
Complete With Drainboard

Number.	Size of Sink.	Size of Drainboard.	Price.
5-X-1675.	18 in. x 24 in.	18 in. x 20 in.	$25.00
5-X-1677.	20 in. x 24 in.	20 in. x 24 in.	29.00
5-X-1679.	18 in. x 30 in.	18 in. x 24 in.	28.15
5-X-1681.	20 in. x 30 in.	20 in. x 24 in.	29.60
5-X-1683.	20 in. x 36 in.	20 in. x 24 in.	32.15

If you intend to install the sink yourself, specify iron pipe connection and add 75c to the prices above.



Corner Style Roll Rim



One-Piece Sink Fitted With Enameled Drainboard

White Porcelain Enameled One-Piece Kitchen Sinks

Two Aluminum Bronzed Legs Furnished if Wanted for $2.00

These splendid high back one-piece roll rim sinks are furnished for right or left corner as desired. Being cast in one-piece and heavily coated with white porcelain enamel on the inside and over the rim and back, there are no crevices or corners to catch the dirt. Back and end piece are 12 in. high. Furnished complete with nickel-plated strainer, ½ in. nickel-plated faucets and 1½ in. lead "P" trap to wall. Quickly and easily attached to wall with substantial concealed wall hangers.

Prices Without Drainboard

5-X-1633.	Furnished complete as described, size 20 in. x 24 in.	$24.25
5-X-1634.	Furnished complete as described, size 20 in. x 30 in.	26.50
5-X-1636.	Furnished complete as described, size 20 in. x 36 in.	29.00

Complete With Drainboard

5-X-1676.	Furnished complete as described, size 20 in. x 24 in.	$30.75
5-X-1680.	Furnished complete as described, size 20 in. x 30 in.	34.70
5-X-1682.	Furnished complete as described, size 20 in. x 36 in.	37.50

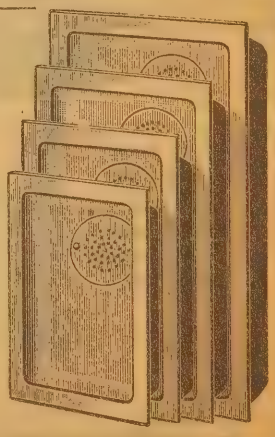
If you intend to install the sink yourself, specify iron pipe connection and add 75c to prices above.

Flat Rim Cast Iron Kitchen Sinks

Furnished Painted or In White Porcelain Enamel

These high grade flat rim cast iron sinks are furnished with the inside painted or coated with white porcelain enamel over rim. Sizes will be found in the list below offered at substantial savings. All sinks are furnished complete with nickel-plated strainer, iron sink collar and bolts. Collar can also be fitted for 1¼ in. or 1½ in. iron pipe connection if desired. Faucets and trap not included in these prices. If iron pipe connections are wanted for these sinks, add 25c to the prices below.

These sinks are used for basement or factory purposes or wherever a strong inexpensive sink can be used. The enameled sinks are very desirable for they are easily cleaned and neat appearing.



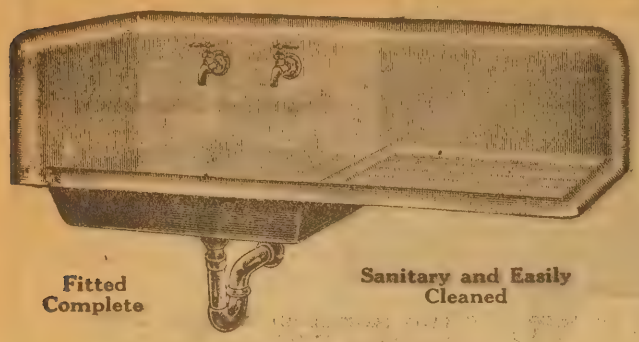
Painted Cast Iron Sinks

5-X-1701.	Size 18x24	$3.30
5-X-1702.	Size 18x30	3.60
5-X-1703.	Size 18x36	4.25
5-X-1704.	Size 20x30	4.05
5-X-1705.	Size 20x36	4.95
5-X-1706.	Size 20x40	5.40

White Porcelain Enameled Sinks

5-X-1709.	Size 18x24	$6.60
5-X-1710.	Size 18x30	6.50
5-X-1711.	Size 18x36	9.30
5-X-1712.	Size 20x30	7.20
5-X-1713.	Size 20x36	10.20
5-X-1714.	Size 20x40	13.60

Newest and Most Popular Designs



Fitted Complete

Sanitary and Easily Cleaned

Note the high corner piece, back, drain board and sink are made in one piece. Right drain board and lead "P" trap to wall as shown will be sent unless otherwise ordered.

One Piece Kitchen Sink for Right or Left Corner

Here is a popular kitchen sink heavily coated with white porcelain enamel, sanitary and easy to keep clean. Made in one-piece without cracks or corners to catch the grease and dirt. Furnished complete with two nickel-plated faucets and lead "P" trap to wall. Quickly and easily attached to wall with strong concealed wall hangers which are furnished without extra charge.

5-X-1792...44 in. long for right or left corner	**$39.75**
5-X-1794. 48 in. long for right or left corner	$41.25
5-X-1796. 52 in. long for right or left corner	43.00
Adjustable painted cast iron legs furnished if wanted; per pair	2.50
Iron pipe connections	.75

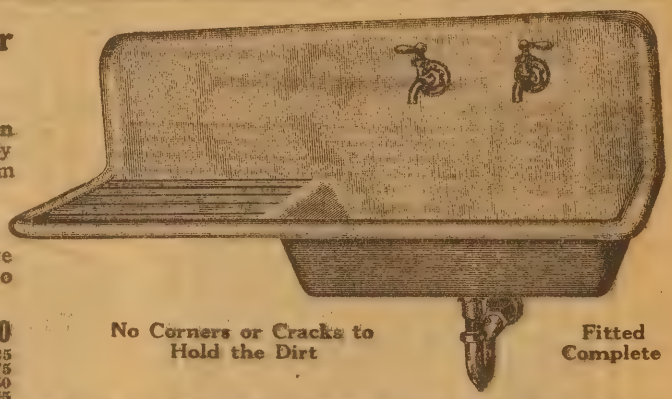
If lead "S" trap to floor is wanted in place of lead "P" trap to wall as illustrated, specify this when you order.

One Piece Kitchen Sink. Right or Left Drainboard

This popular sink features all that is best in a combination sink, back and drain board cast in one-piece. Heavily coated on the inside and over the back and wide roll rim with white porcelain enamel. There are no cracks or crevices to catch the dirt; easy to clean and keep in attractive condition at all times. Quickly and substantially attached to wall with strong concealed wall hangers which we furnish without extra charge. Fitted complete with two nickel-plated faucets and lead "P" trap to floor.

5-X-1791. 44 in. long with left or right drain board	**$33.00**
5-X-1793. 48 in. long with left or right drain board	$34.25
5-X-1795. 52 in. long with left or right drain board	35.75
Adjustable painted cast iron legs furnished if wanted; per pair	2.50
Iron pipe connections	.75

If lead "S" trap to floor is wanted in place of lead "P" trap to wall as illustrated, specify this when you order.

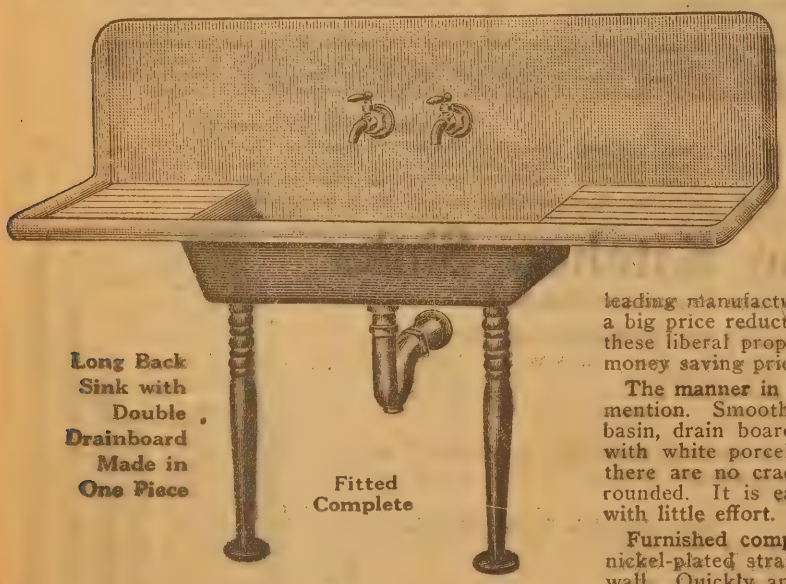


No Corners or Cracks to Hold the Dirt

Fitted Complete

Note the high back and neat roll rim on this splendid sink made in one-piece style and furnished with left drain board and lead "P" trap to wall unless otherwise ordered.

62 Inch Double Drainboard Kitchen Sink



Long Back Sink with Double Drainboard Made in One Piece

Fitted Complete

Roll Rim Style in White Porcelain Enamel

$49.50

This beautiful high grade kitchen sink is offered to those of our customers who are looking for a modern up-to-date addition for their kitchens with every desirable feature.

A recent big purchase from one of America's leading manufacturers brought us a large number of these sinks at a big price reduction. That is why we are able to offer a sink of these liberal proportions and of such excellent quality at this big money saving price.

The manner in which these sinks are made is worthy of special mention. Smoothly cast in one piece of best gray iron. Sink basin, drain boards, high back and roll rim are perfectly coated with white porcelain enamel. Being made entirely of one piece, there are no cracks or crevices to collect dirt. All corners are rounded. It is easy to keep this beautiful sink spotlessly clean with little effort.

Furnished complete with two high grade nickel-plated faucets, nickel-plated strainer and 1½ in. lead "P" trap for connection to wall. Quickly and easily hung with concealed wall hangers and supported by two painted cast iron legs of neat design furnished without extra charge. The legs and lower section of this sink can be painted to match your walls.

5-X-1862. Kitchen sink 62 in. long, complete with all fittings as described for iron pipe connections... **$49.50**

One-Piece Deep Apron Kitchen Sinks

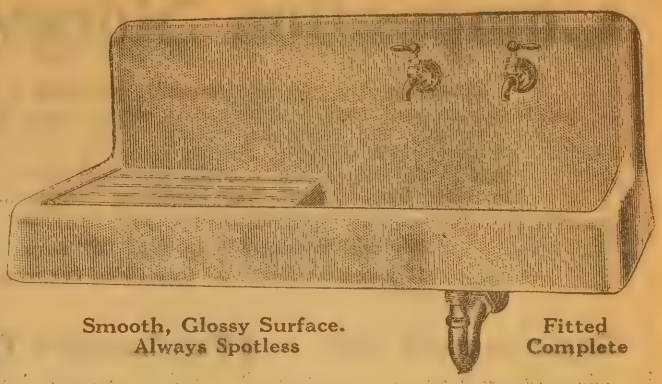
One Piece Kitchen Sink. Right or Left Drainboard

Good looking sanitary kitchen sink featuring a one-piece combination of sink, back and drain board cast in one piece of smooth gray iron and heavily coated on the inside and over the deep apron and back with white porcelain enamel. No cracks or crevices to collect grease and dirt. Notice especially the deep apron 5 in. wide, which gives this sink a rich, massive appearance. Furnished complete with two high grade nickel-plated faucets and lead "P" trap to wall. Quickly and easily attached to the wall with strong concealed wall hangers which are furnished without charge.

5-X-1846. 44 in. long with left or right drain board **$43.25**
5-X-1848. 48 in. long with left or right drain board $49.75
5-X-1850. 52 in. long with left or right drain board 56.25

Two adjustable painted cast iron legs furnished.

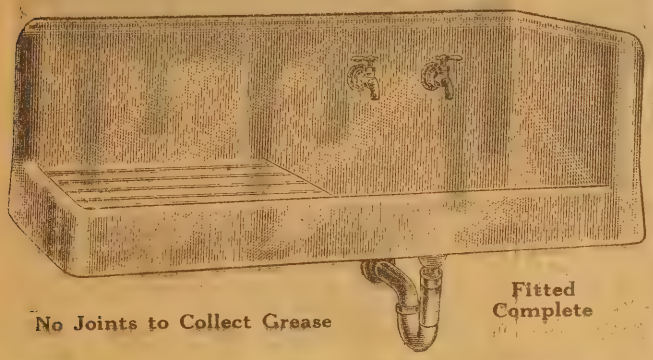
Lead "S" trap to floor furnished if wanted in place of lead "P" trap to wall as shown.



Smooth, Glossy Surface. Always Spotless

Fitted Complete

Furnished complete with left or right drain board. Left drain and lead "P" trap to wall as illustrated will be sent unless otherwise specified.



No Joints to Collect Grease

Fitted Complete

Furnished for either right or left corner as desired. Right corner style with lead "P" trap to wall will be sent unless otherwise specified in your order.

One Piece Kitchen Sink for Right or Left Corner

An impressive corner kitchen sink made in one piece, including sink, drain board, back and end piece, 12 in. high, heavily coated with white porcelain enamel on the inside and over drain board, back and 5 in. deep apron with white porcelain enamel. Made in sanitary style with round corners; no cracks or crevices to catch dirt. Easily cleaned and kept in beautiful condition with little effort. Furnished complete with two high grade nickel-plated faucets and lead "P" trap to wall. Quickly and easily attached to wall with strong concealed wall hangers which are furnished without extra charge.

5-X-1853. 44 in. long for right or left corner **$45.75**
5-X-1855. 48 in. long for right or left corner $53.75
5-X-1856. 52 in. long for right or left corner 60.25

Two adjustable painted cast iron legs furnished.

Lead "S" trap to floor furnished if wanted in place of lead "P" trap to wall.

62 Inch Double Drainboard Sink

Deep Apron Style in White Porcelain Enamel

$61.25

This elegant kitchen sink embodies every feature of rich appearance and every convenience you could wish for. Nothing has been spared to produce the finest kitchen sink from every standpoint; yet we are able to offer our special stock at a price you will be glad to pay. If you are looking for the best sink that money can buy, one that you will enjoy taking care of, let this be your choice.

Made of best gray cast iron with double drain board, sink basin and back cast in one piece. Heavily and evenly coated on the inside and over the deep 5 in. apron with glossy white porcelain enamel. The enamel coating is perfectly applied and baked on for life long service. Two adjustable painted cast iron legs are furnished to complete the sanitary clean appearance.

Size of sink basin 20 in. x 26 in. Length of sink over all, 62 in; height of back 12 in. Made with rounded corners and easily cleaned. Furnished complete with two high grade nickel-plated compression faucets, nickel-plated strainer and 1½ in. "P" trap to wall.

One Piece Long Back Sink With Double Drainboard. Made in One Piece

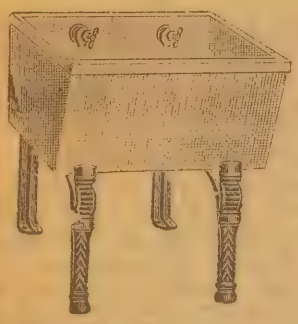
5-X-1864. Kitchen sink 62 in. long, complete with all fittings as described for iron pipe connections **$61.25**

Composition Stoneware Laundry Tubs

These laundry tubs are smoothly moulded in one solid piece from a composition of Portland cement and crushed granite. All designs with and without backs are made with rounded corners —sanitary and easily kept clean. They are fitted with a rust proof metal top rim to protect them against chipping. Fitted complete with brass strainer, rubber plug and waste connection cast in the tub, which prevents leaky connections supported by cast iron legs. Polished brass ½ in. plain flanged wash tray bibbs are furnished.

We will furnish 1½ in. lead "S" trap for lead pipe connections for, extra, $1.32
If you wish lead "S" trap fitted for iron pipe connection, add, extra, $2.10

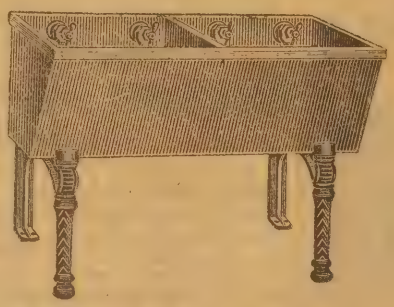
Single Laundry Tub



Single composition laundry tub fitted complete with brass strainer, rubber plug, waste connection and one pair of polished brass, ½ in. flanged wash tray bibbs; supported by one pair of painted cast iron legs.

Order No.	L'ngth ins.	W'dth ins.	D'pth ins.	W'ght Pr lbs.	
5-X-1901	25	24	16	200	$11.25
5-X-1902	27	24	16	225	11.75
5-X-1903	31	24	16	250	12.90

2 Part Laundry Tub



Two-part composition laundry tub fitted complete with brass strainer, rubber plugs, waste connection and two pairs of polished brass ½ in. flanged wash tray bibbs; supported by two painted cast iron legs.

Order No.	Length inches	Width inches	Depth inches	Weight pounds	Price
5-X-1907	48	24	16	400	$15.50
5-X-1908	54	24	16	450	17.00
5-X-1909	60	24	16	475	17.75

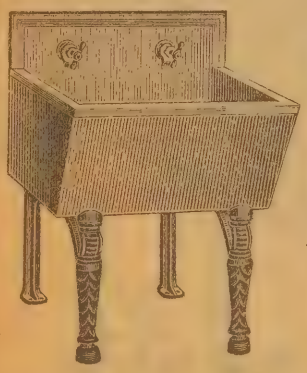
3 Part Laundry Tub

Three-part composition laundry tub fitted complete with brass strainers, rubber plugs, waste connections and three pairs of polished brass ½ in. flanged wash tray bibbs; supported by three painted cast iron legs.

Order No.	Length inches	Width inches	Depth inches	Weight pounds	Price
5-X-1913	72	24	16	600	$23.50
5-X-1914	80	24	16	650	25.50
5-X-1915	90	24	16	700	27.50

Desirable High Back Laundry Tubs

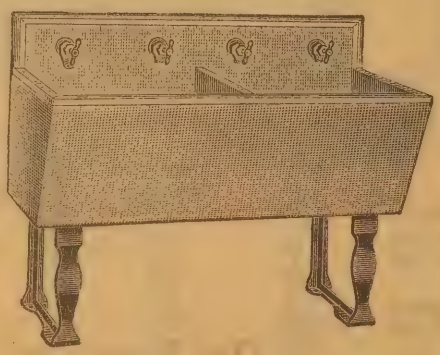
Single Laundry Tub



High back single composition laundry tub, fitted complete with brass strainer, rubber plug, waste connection and one pair of polished brass ½ in. flanged wash tray bibbs; supported by one pair of painted cast iron legs.

Order No.	L'ngth ins.	W'dth ins.	D'pth ins.	W'ght lbs.	Pr.
5-X-1904	25	24	16	225	$12.75
5-X-1905	27	24	16	250	13.75
5-X-1906	31	24	16	275	14.75

2 Part Laundry Tub



High back two-part composition laundry tub fitted complete with brass strainers, rubber plugs, waste connection and two pair of polished brass ½ in. flanged wash tray bibbs; supported by two painted cast iron legs.

Order No.	Length Ins.	Width Ins.	Depth Ins.	Weight Lbs.	Price
5-X-1910	48	24	16	450	$20.00
5-X-1911	54	24	16	500	22.80
5-X-1912	60	24	16	525	24.50

3 Part Laundry Tub

High back, three-part composition laundry tub fitted complete with brass strainers, rubber plugs, waste connections and three pair of polished brass ½ in. flanged wash tray bibbs; supported by three painted cast iron legs.

Order No.	Length Ins.	Width Ins.	Depth Ins.	Weight Lbs.	Price
5-X-1916	72	24	16	650	$31.25
5-X-1917	80	24	16	700	34.75
5-X-1918	90	24	16	750	36.75

See the Big Values in Pipes and Fittings in this book

New Process White Laundry Tubs

Made in One Piece of White Composition Stoneware

Here is the most elegant laundry tub ever produced. Our special secret process of manufacture, which is the very latest thing yet brought out in laundry tub construction, gives us an ivory finish tub, presenting clean, sanitary appearance far superior to anything ever before offered in this line.

The accompanying cut shows the design. We can furnish these tubs in both two and three parts. The entire tub is cast in one solid piece with rounded inside corners; no joints or seams to collect grease or dirt.

There is only one waste connection for a two compartment tub, both parts being connected by a special fitting. This saves 50 per cent of the work in connecting; avoids the necessity of two traps. We can furnish these tubs either for iron pipe connections or lead connection. These tubs come in two styles, with 6-inch high and without 6-inch high back.

Fitted Complete These tubs are furnished complete, as shown in illustration, including: The Tub bound with Metal rim, has four ½-in. Flange Compression Laundry Faucets, has two painted cast iron legs, has a brass strainer and waste connection; in fact, everything complete with the exception of the trap, which we furnish at an additional cost. See below:

PRICES OF TWO PART TUBS AS FOLLOWS:

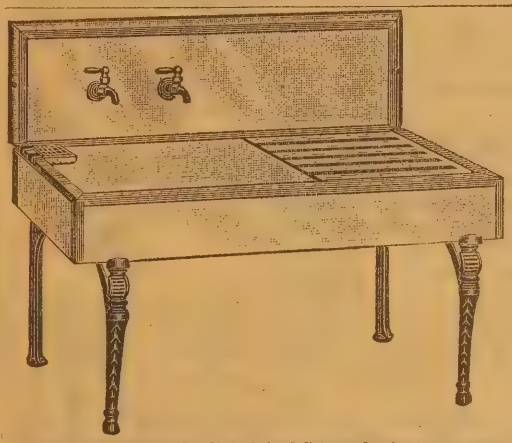
No.	Length	Width	Depth	Price with 6 in. high back	Price without 6 in. high back
5-X-2031	48 in.	24 in.	16 in.	$22.25	$19.75
5-X-2033	54 in.	24 in.	16 in.	25.00	21.50
5-X-2035	60 in.	24 in.	16 in.	26.75	23.25

NOTE: We can furnish 1½ inch lead S trap, fitted for lead pipe connections, at an additional charge of **$1.32**

PRICES OF THREE PART TUBS AS FOLLOWS:

No.	Length	Width	Depth	Price with 6 in. high back	Price without 6 in. high back
5-X-2037	72 in.	24 in.	16 in.	$36.00	$28.75
5-X-2039	80 in.	24 in.	16 in.	39.60	33.60
5-X-2041	90 in.	24 in.	16 in.	44.25	37.25

We can furnish 1½ inch lead S trap, fitted for iron pipe connections, at an additional charge of **$2.10**



Elegant Stoneware Kitchen Sink

We furnish this Sink complete, as shown in illustration, being made of our composition stoneware, which is absolutely indestructible and will give a life-long service. Please bear in mind when comparing our prices with others that we furnish this Sink complete, as shown.

This Sink is made of a composition of the finest grade of Portland Cement and Crushed Gravel. It is molded and made into one solid piece, with round corners making sink perfectly sanitary and easy to keep clean. It is much stronger and harder than Sinks made of stone and is a decided feature in the plumbing line. We have had a large demand for these Sinks, each one of them proving entirely satisfactory.

Furnished Complete This Premier Stoneware Kitchen Sink has a 14-inch high back, bound with a metallic rim, as shown in illustration, protecting the edges, and sets off the sink to a decided advantage. Has a brass strainer and a waste connection. Has a mosaic drain board, beautiful in appearance, easily kept clean. Has two ½-inch Fuller faucets. Has two 18 to 24-inch extension painted legs. Has a galvanized hanging soap cup.

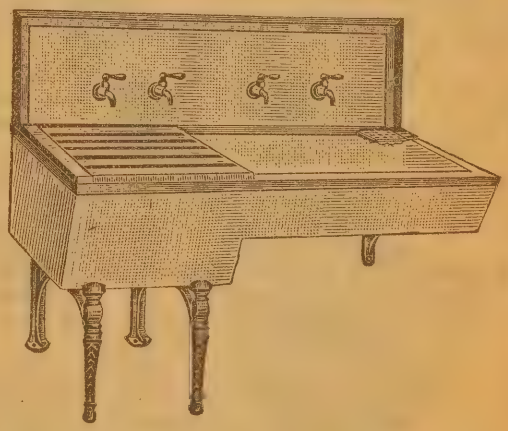
We guarantee the Premier Stoneware Kitchen Sink against leakage for ten years; in fact, this sink will last you a lifetime and it is strictly A grade and perfect in every respect.

Order No.	Size of Sink	Size of Drain Board	Total Length	Price Complete
5-X-2021	18x30x8 in.	18x20 in.	50 in.	$28.40
5-X-2023	20x36x8 in.	20x20 in.	56 in.	30.30
5-X-2025	20x40x8 in.	20x24 in.	64 in.	32.65

NOTE: We can furnish 1½ inch lead S trap, fitted for lead pipe connections, at an additional charge of.. **$1.32**

We can furnish 1½ inch lead S trap, fitted for iron pipe connections, at an additional charge of..... **$2.10**

Desirable Combination Sink and Laundry Tub



These tubs are made of a special composition of the highest grade of Portland Cement and crushed gravel. They will last a life time, are absolutely indestructible.

They are moulded and made into one solid piece, have round corners, making them perfectly sanitary and easy to keep clean.

They are furnished complete as shown in illustration. Please bear this in mind when comparing our prices with others. We always furnish goods exactly as shown, leaving out no details or small parts for our customers to buy.

Fittings Consist of Laundry Tub, Kitchen Sink, High 14 inch back and hardwood drain board. All bound on edge with patent metallic rim. Has brass strainer and waste connection. Has cast iron legs and sink bracket.

Has four highly polished ½ inch Fuller Flange Laundry Faucets. Everything complete as shown in illustration, including soap cup:—

All measurements given are outside:—

	5-X-5001	5-X-5003	5-X-5005
Total length	48 inches	54 inches	60 inches
Width	24 inches	24 inches	24 inches
Depth, tub part	16 inches	16 inches	16 inches
Depth, sink part	8 inches	8 inches	8 inches
Price, complete as described above	$33.00	$35.75	$38.65

NOTE: We can furnish 1½ inch lead S trap, fitted for lead pipe connections, at an additional charge of. **$1.32**

We can furnish 1½ inch lead S trap, fitted for iron pipe connections, at an additional charge of..... **$2.10**

Miscellaneous Plumbing Articles at a Saving

Portable Shower Bath

5-X-3069. Nickel Plated Portable Shower Bath with Duck Curtain and Rubber Hose with Holdfast Rubber Bulb $13.25

5-X-3071. Nickel Plated Brass Shower Bath, with Head Shower and Shampoo Attachment, Rubber Hose and Sprinkler, ½" Supply Pipes to floor with check valves, China Indexed Controlling Valves and Duck Curtain $26.50

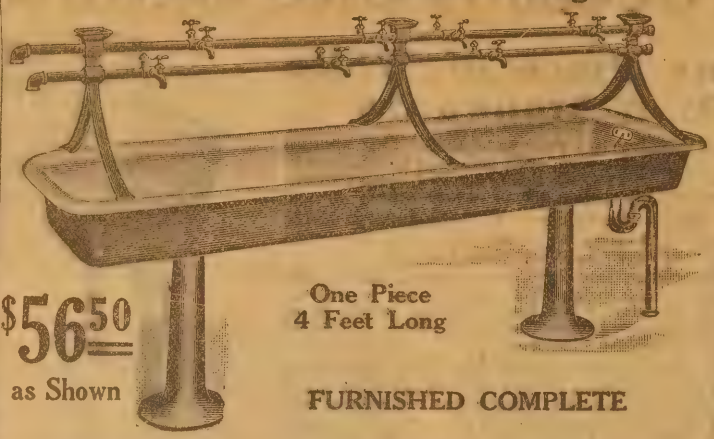
Ajax Bubbling Fountain

This bowl is similar in construction to our Lot No. 5-X-2510, excepting that the waste and supplies go to the wall instead of to the floor. It is adapted for places where economy of space is desired. It is equipped with nickel plated, self-closing stop with china indexed button.

Lot No. 5-X-2515. Bowl painted outside and enameled inside..... $12.15

5-X-2516. Bowl enameled inside and outside..$13.95

Factory Sinks at Great Savings



$56.50 as Shown

One Piece 4 Feet Long

FURNISHED COMPLETE

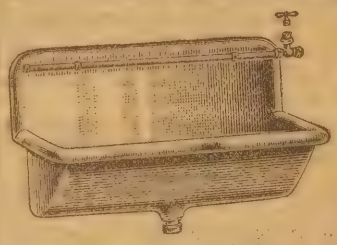
The Wash Sink Illustrated is a very modern low priced Sink. Designed especially for Factory use. It is made in one piece and with roll rim, of the highest grade of cast iron. Enameled inside with White Porcelain and painted outside. Supply pipes for hot and cold water are highly finished and fitted with high grade faucets. Sink is also furnished with brass Nickel Plated "S" Trap to floor with overflow. Furnished in two sizes as listed below:

5-X-2518. 4 ft. long, complete.....$56.50

5-X-2520. 6 ft. long, complete. Weight approximately 400 lbs. Price $60.00

5-X-2525. 8 ft. long, complete. Weight approximately 525 lbs. Price $88.00

Porcelain Enamel Urinals—Roll Rim $17.60



Porcelain enameled roll rim urinals, all in one piece. They are supported on concealed wall hangers and have beehive strainer and coupling, and perforated flush pipe with loose key stop.

		Prices
5-X-1833.	Size 24 inches long	$19.40
5-X-1834.	Size 30 inches long	$21.90
5-X-1835.	Size 36 inches long	24.50
5-X-1836.	Size 42 inches long	27.00
5-X-1837.	Size 48 inches long	29.40
5-X-1838.	Size 60 inches long	36.90
5-X-1839.	1¼ inch Nickel Plated P Trap	2.20
5-X-1840.	1½ inch Nickel Plated P Trap	2.60

Enameled Roll Rim Slop Sinks

Order No. 5-X-1091. Porcelain enameled roll rim slop sink, with back, all in one piece, on trap standard, with cleanout and waste to wall 12 in. high roll rim back, outlet threaded for 2 in. iron pipe.

Size—16x20x12—Enameled inside only $26.00

Enameled inside and outside.....$33.15

Size—18x22x12—Enameled inside only 29.90

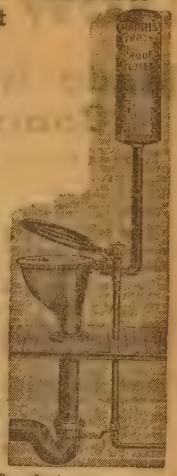
Enameled inside and outside..... 37.85

Size—20x24x12—Enameled inside only 33.75

Enameled inside and outside..... 41.75

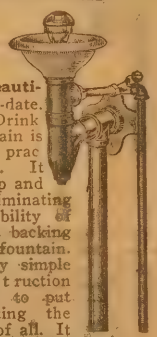
Extra for 2—¾" Nickel Plated Fuller Flange Bibbs 4.00

Harris Frost-Proof Closet



5-X-1900. Valve action is free and easy, allowing full capacity of tank to flush the bowl unobstructed by interior parts. Separate valves make it easy to adjust and safe and sure from frost and leaks. A slight pressure on the seat operates the valve and gives a full pressure of water to flush the bowl clean. Always clean, sanitary and odorless. Can be put in a very small space. This outfit as illustrated, complete as shown $27.00

Hercules Bubbling Fountains



This beautiful, up-to-date Sanitary Drinking Fountain is a very practical one. It has a trap and waste, eliminating any possibility of sewer gas backing into the fountain. It is very simple in construction and easy to put up, meeting the demands of all. It is similar to our Lot No. 5-X-2515.

Lot No. 5-X-2510. Bowl painted outside and enameled inside $14.75

Bowl enameled outside and inside $16.00

Premier Slop Hopper

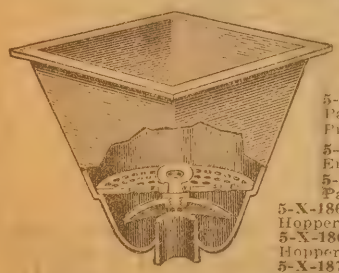


Illustration shows our "Premier" painted and enameled iron Slop Hopper. It is furnished complete as shown and made of the very best material, and made in three sizes.

5-X-1865. Size 12x12 inches. Painted Hopper. Price $3.15

5-X-1866. Size 12x12 inches. Enameled Hopper. Price.....$4.40

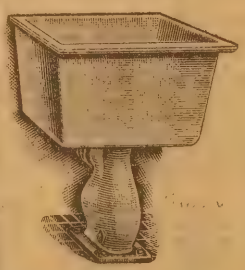
5-X-1867. Size 14x14 inches. Painted Hopper. Price.....$3.30

5-X-1868. Size 14x14 inches, Enameled Hopper. Price.....$4.75

5-X-1869. Size 16x16 inches, Painted Hopper. Price.....$3.70

5-X-1870. Size 16x16 inches, Enameled Hopper. Price.....$5.60

Enameled Iron Flat Rim Slop Sink



5-X-1877. Illustration shows our enameled iron flat rim Slop Sinks, which are furnished on the trap standard with cleanout and brass vent connections.

size	Prices
16x16x10 inches	$15.95
16x20x12 inches	$17.75
18x22x12 inches	18.60
20x22x12 inches	19.40
20x24x12 inches	20.60

They are shipped from our factory in Southern Wis.

WATER HEATERS AND RANGE BOILERS

EXTRA HEAVY GALVANIZED RANGE BOILERS GUARANTEED 3 YEARS

These range boilers are tested to 250 lbs. working pressure. They are much heavier and better than our Standard Galvanized Range Boilers and are intended for use with a working pressure of over 150 lbs. They are made of much heavier material than the Standard Boilers and are suited for higher pressures.

Order No.	Cap., Gal.	Ht. in Boiler	Ht. in inc. Stand	Weight, Pounds	Boiler only	Price Complete
5-X-2109	30	60	75	87	$15.50	$17.35
5-X-2113	40	60	75	100	19.20	21.05
5-X-2115	52	60	75	135	29.50	32.40

The complete price includes boiler, stand, tubes and couplings.

Special Note. Bear in mind that Range Boilers can only be used where there is a constant water pressure. In the event that you have such a water supply, these tanks can be connected with lead or iron pipe to a stove or furnace and then you can draw hot water from your faucets without any extra expense.

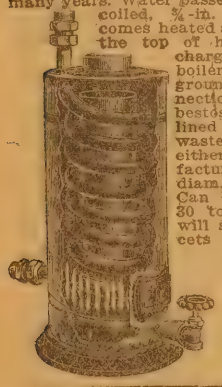
LEAD PIPE CONNECTIONS FROM BOILER TO RANGE

By using this lead pipe connection, the job of connecting a Range Boiler is made easy, one each to connect the side and bottom of the boiler. Lead pipe will bend easily and the balance of the distance can be fitted with a ¾-inch iron pipe. These connections are made of ¾-inch lead pipe with a brass coupling soldered on each end, as shown in illustration.

Lot No. 5-X-2127. Lead pipe connections. Price, per set of two.....$2.00

PREMIER GAS WATER HEATER

One of our greatest bargains. Economical and efficient; will give excellent service for many years. Water passes through a drawn, coiled, ¾-in. copper tube, becomes heated and passes through the top of heater and is discharged at the top of boiler. Fitted with a ground joint brass connection and conical asbestos covered deflector, lined with asbestos. No waste of heat. Can use either natural or manufactured gas. Size 8 in. diam. by 15 in. high. Can be connected to a 30 to 40 gallon boiler; will supply 3 to 10 faucets very nicely.



5-X-2131. Price, planished iron jacket.

7.45

5-X-2131½. Larger size, greater capacity. $8.50

PREMIER GASOLINE WATER HEATER

We can furnish you with a Premier Gasoline Water Heater which is constructed along the same lines as our Lot No. 5-X-2131½, complete, ready to use. Simple in construction.

Lot No. 5-X-2133. Price..... **$14.75**

Peerless Kitchen Boiler

AND WATER HEATER COMBINED

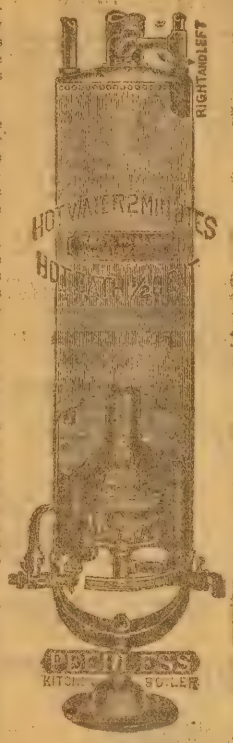
Is of Absolutely Simple Construction

On the outside, The Peerless looks like almost any other kitchen boiler, but this picture will show you the inside construction and its extreme simplicity.

The heat, generated in the burner, strikes the water spreader or disc and passes directly into the water, causing it to circulate. The disc or spreader is used for the purpose of spreading water; it also prevents the flame from coming in contact with the bottom of the boiler, thus protecting it against the gas flame. In The Peerless we have nothing to conceal.

By looking at the picture you can see the burner, pipes, connections and how the water is kept in constant circulation. The cold water is carried to the bottom of the disc through the left hand pipe and comes instantly in contact with the hottest part of the boiler, just above the flame. It is quickly heated and as it is warmed, rises through the center tube to top of boiler.

The heat, after passing around the disc, continues all the way up through the center of boiler. The Small Burner, when lighted, will keep the water heated and in circulation any length of time at very small cost.



Lot No.	Length	Diameter	Price, Each
5-X-5118	3 feet	12 inches	$30.00
5-X-5124	4 feet	12 inches	31.25
5-X-5130	5 feet	12 inches	32.75
5-X-5140	5 feet	14 inches	36.35

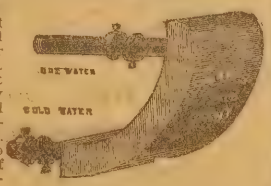
GALVANIZED RANGE BOILER COUPLINGS

These Couplings are made of the best grade Malleable Iron, heavily galvanized. Threaded for iron pipe connections.

Lot No. 5-X-2125. Price per set..$1.30

SMITH'S LITTLE GIANT

This heater is designed for use over the fire pot of the furnace. It will heat radiators or water supply and will give a constant volume of hot water. They are very good to heat an isolated room where your furnace will not reach. They are very simple to install and are made of very good heavy material.



Order No.	Size No.	Height.	Width, Inches.	Size of Pipe.	Bet. Center of Pipe.	Cap'cy Sq. Ft. of Rad.	Price.
5-X-2141.....	0	9	5	1	6½	30	$6.00
5-X-2143.....	1	9	8	1¼	6½	50	8.40
5-X-2145.....	2	10½	10	1½	8½	100	11.75
5-X-2147.....	3	12	12	2	...	150	15.10

STANDARD GALVANIZED RANGE BOILERS GUARANTEED 1 YEAR

Our Standard Galvanized Range Boilers are guaranteed to be full weight and extra well riveted. They are tested to a working pressure of 150 lbs. before leaving our factory.

Fitted Complete. All boilers are furnished complete with stand, galvanized inside tubes and galvanized malleable iron couplings, threaded for iron pipe connections.

The top boiler tube is screwed into the boiler coupling with a female thread on the inside of coupling and then dropped through one of the openings on the top of the boiler. This tube is for the cold water going into the boiler and the other coupling is for the hot water coming out of the boiler. The bottom opening is a drain and is connected to the lowest connection of the stove or furnace. The side opening is used to connect with the top connection of stove or furnace in order to create a circulation. These boilers cannot be used with an average pressure of over 85 lbs.

Order No.	Cap., Gal.	Ht. in Boiler	Ht. in inc. Stand	Weight, Lbs	Boiler only	Price Complete
5-X-2101	30	60	75	72	$14.00	$15.95
5-X-2105	40	60	75	85	15.40	17.25
5-X-2107	52	60	75	120	24.75	27.70

We can furnish the above boilers with couplings, threaded for iron pipe connections at 20c above prices quoted. If you do not want a Stand, deduct 55c from the prices quoted.

CAST IRON STANDS FOR RANGE BOILERS

These Stands are made of high grade gray cast iron. They are extra strong and are made to carry an overload far beyond the capacity we list. The height is 15 inches.

Order No.	Diameter Stand.	For Boiler.	Price Each.
5-X-2117	12-in.	30 gal.	$0.55
5-X-2121	14 in.	40 gal.	.65
5-X-2123	16 in.	52 gal.	1.60

KENNEY NEEDLE SHOWER

$6.00

Here's a perfect shower bath for every home, easily and quickly attached to any bath tub. Made of the finest materials. Will last a lifetime; highly polished. No need for curtains; two streams strike the body at a downward angle and the water follows the lines of the body into the tub. Does not interfere with use of bath tub. A handle at bottom of shower turns water into tub or up into shower as you wish. We guarantee every shower. No. 5-X-225. Tell us style of faucet connection in bath tub. Weight, 4 lbs.

Price, complete..... **$6.00**

Bathroom Fixtures

CONNECTED BATH WASTE AND OVERFLOW

5-X-3131. Heavily nickel plated. Can be connected with the bath tub. This complete fitting costs less than the labor of putting in the old style waste and overflow in connection with bath tub. For lead pipe. Price, each..... **$2.95**

COMBINATION BATH TRAP OVERFLOW AND WASTE

The trap is provided with clean-out plug and is perfectly sanitary. Heavily nickel plated. We can furnish this fitting for either iron or lead pipe outlet.

5-X-3135. Price for lead pipe outlet.... **$5.50**

5-X-3137. Price for iron pipe outlet $6.00

SAFETY CHAIN

5-X-5900. Nickel plated safety chain used on plugs, stoppers, closet puller, etc. Price per yard..... **12c**

COCK HOLE COVERS

5-X-3190. Porcelain Enameled Cock Hole Covers for bath tubs, sinks and lavatories. Price, each..... **25c**

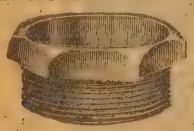
ONE QUARTER BEND SLIP JOINT CONNECTION

5-X-3196. Heavily Nickel Plated Brass Slip Joint Connections, size, 1¼" by 1¼", for use with high closet tanks and wash down bowls. Price, each..... **75c**

OFFSET SLIP JOINT CONNECTIONS

5-X-3197. Made of brass, nickel plated. Size 2x2 x6 inches. For use with low-down closet tanks and syphon jet bowls. Price, each.... **98c**

SOLDERING BRASS BUSHINGS



5-X-3198. Soldered to lead pipe to make iron pipe connections. Size 1¼". Price.. **25c**

5-X-3199. Soldered to lead pipe to make iron pipe connections. Size 1½". Price.....30c

INDEXED COMPRESSION COCKS

$4.95 BATH COCK

Made of red brass. Is highly nickel plated and has china index lever handles. The large chamber at back thoroughly mixes the hot and cold water before leaving nozzle.

5-X-3104. Price with lead pipe tall pieces.. **$4.95**

5-X-3106. Price with iron pipe tall pieces $5.45

BASIN COCK $1.50

The most handsome and serviceable heavily nickel plated Basin Cock manufactured. The body and spout are cast solid in one piece. On the top of the handle a water porcelain plate is properly fitted in and marked either "Hot" or "Cold." If not ordered in pairs, be sure and state what index you desire.

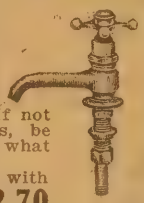
5-X-3125. Price with iron pipe tall pieces, ea. **$1.50**

$1.60 FULLER BASIN COCKS

Cast brass, heavy design, finely nickel plated. Generally sold in pairs, one right and one left hand. We will, however, sell a single cock, but it will be necessary to state when ordering whether right or left hand is required.

5-X-3110. Price with iron pipe tall piece, ea. **$1.60**

SELF CLOSING FAUCET $2.70



Compression Nickel Plated Self-Closing Faucet with china top marked "Hot" or "Cold." Low-down pattern. If not ordered in pairs, be sure to mention what index is wanted.

5-X-3122. Price with lead pipe tall pieces..... **$2.70**

5-X-3124. Price with iron pipe tall pieces... **$2.95**

$3.95 FULLER BATH COCKS

No. 4½. Made of heavy cast brass, handsomely nickel plated. Guaranteed to be the best cock on the market.

5-X-3101. Price with lead pipe tall piece... **$3.95**

5-X-3103. Price with iron pipe tall piece $4.30

COMP'N BATH COCKS $3.75

Made of heavy cast brass, handsomely nickel plated. Excellent design, best possible to produce.

5-X-3105. Price with lead pipe tall piece.... **$3.75**

5-X-3107. Price with iron pipe tall piece $4.00

FLUSH PIPES

5-X-3193. Nickel plated Flush Pipes are to be used with high tank closet outfits. They are made of heavy brass tubing, highly nickel plated, and are 1¼ inches by 6 feet long, with 3-inch offset and 1⅝-inch collar. Price, each..... **$2.75**

OFFSET SUPPLY PIPE

5-X-3194. Nickel Plated. These supply pipes are made of ⅝-inch heavy brass tubing, highly nickel plated. To be used with high tank closet outfits. Price, each..... **$2.70**

BATH OVERFLOW STRAINER WITH RING FOR CHAIN

5-X-3139. Heavily nickel plated for lead pipe. Price..... **$1.45**

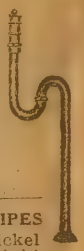
5-X-3141. Heavily nickel plated for 1¼" iron pipe. Price....$1.95

WASTE PLUG WITH RUBBER STOPPER

5-X-3143. Heavily nickel plated for lead pipe. Price..... **$1.45**

5-X-3144. Heavily nickel plated for iron pipe. Price $1.95

"S" TRAPS

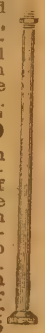


5-X-3157. 1¼-inch nickel plated "S" trap. For lead pipe connection. Price, each.. **$2.95**

5-X-3158. 1¼-inch nickel plated "S" trap. For iron pipe connection. Price, each.....$3.45

STRAIGHT SUPPLY PIPES

5-X-3167. Nickel plated straight bath supply pipes, made of heavy ½-inch tubing, fitted with coupling, threaded to connect with tall pieces on bath cock, complete with floor flanges. Price, per pair... **$2.25**

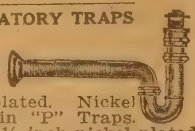


5-X-3173. Plain straight basin supplies made of heavy tubing. Size ⅜ inch, fitted with nickel plated coupling, threaded to fit basin cocks. furnished with nickel plated floor flanges. Price, per pair $2.25

BASIN SUPPLY PIPES

5-X-3171. Nickel plated Basin Supply Pipes to wall, plain, made of heavy ⅜-inch brass tubing fitted with coupling to fit basin cock, nickel plated flanges. Price, per pair.... **$2.25**

LAVATORY TRAPS



Made of brass tubing. Is heavily nickel plated. Nickel Plated Plain "P" Traps.

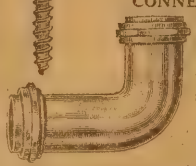
5-X-3145. 1¼-inch nickel plated plain "P" trap, not vented. For lead pipe connection. Price, each..... **$2.45**

5-X-3146. 1¼-inch nickel plated plain "P" trap. For iron pipe connection. Price, each...$2.95

HEAD CLOSET SCREWS AND WASHERS

5-X-3191. Nickel Plated Heavy Pattern Head Closet Screws and Washers 2¼ inches under the head. Per set of 3 pieces as shown. Price per set... **10c**

SLIP JOINT CONNECTION

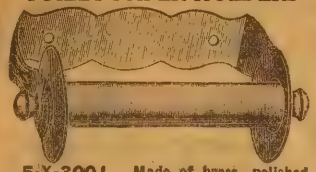


5-X-3185. These elbows are made of brass and are heavily nickel plated. Sizes 2x4x6 in., to be used with low-down closet tanks and wash-down bowls. Price, each **95c**

HARRIS BROTHERS CO.
35th & Iron Streets, Chicago.

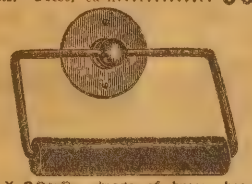
BATHROOM AND TOILET FIXTURES

TOILET PAPER HOLDERS



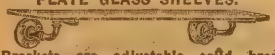
5-X-3001. Made of brass, polished and nickel plated, with cherry roller. Price, each..... **59c**

5-X-3059. Made of cast brass, heavily nickel plated and highly polished. This is a heavy fixture and is well adapted for use with our best bathroom outfits. Price, each..... **60c**



5-X-3003. Made of brass, heavily nickel plated and highly polished, with ebony roller. Price, each..... **32c**

PLATE GLASS SHELVES.



Brackets are adjustable solid brass, nickel plated, and highly polished. Plate glass shelf is polished and has rounded edges.

5-X-3027. Size of shelf, 18x5 in. Price..... **95c**

5-X-3028. Size of shelf, 24x5. **$1.25**

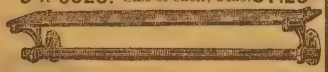


PLATE GLASS SHELF AND TOWEL BAR COMBINED

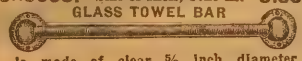
Brackets are made of solid cast brass, heavily nickel plated and polished. The shelf is made of plate glass, polished, with rounded edges. The bar is of solid round glass, 1 inch diameter and can be readily removed.

5-X-3031. Size of shelf, 18x5 in. Price..... **$3.35**

5X3032. Size of shelf, 24x5 in. **$3.60**

5X3033. Size of shelf, 30x5 in. **3.85**

GLASS TOWEL BAR



Is made of clear ⅝ inch diameter. Posts are cast brass, heavily nickel plated and complete with screws. Each **76c**

5X3061. 15 inches long.... **76c**
5X3062. 18 inches long..... **84c**
5X3063. 24 inches long..... **96c**

NICKEL PLATED TOWEL BAR

Made of brass tube ½ inch diameter, heavily nickel plated, complete with screws. Each **48c**

5X3051. 15 inches long.... **48c**
5X3052. 18 inches long..... **50c**
5X3053. 21 inches long..... **55c**
5X3054. 24 inches long..... **60c**

NICKEL PLATED TOWEL BAR

Made of ½ inch brass tubing, heavily nickel plated, with cast posts, complete with screws. Each **69c**

5X3085. 15 inches long.... **69c**
5X3087. 18 inches long..... **72c**
5X3089. 21 inches long..... **75c**
5X3091. 24 inches long..... **79c**
5X3093. 30 inches long..... **85c**

White Enameled Medicine Cabinet

French Plate Mirror $3.00

This medicine cabinet is designed to match the interior trimming of any room. Plain and neat; heavily coated with pure white enamel. Easy to clean and keep clean. Size over-all 15½ in. high, 11½ in. wide and 4 in. deep. The door is hung on strong hinges and will not sag; fitted with best quality plain plate mirror size 12 in. high and 8 in. wide.
5-X-808. Price, each..... **$3.00**

75c

5-X-294. Door bumper and coat hook made of cast brass; nickel-plated. 4 in. long. Price, each..... **75c**

53c

5-X-291. Water bag hook made of cast brass; nickel-plated. 5 in. long. Price, each..... **53c**

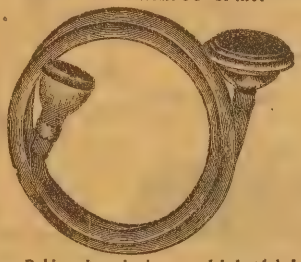
DOUBLE ARM TOWEL BAR

5-X-532. Made with two ¼ in. rods 10 in. long. Price, each..... **85c**

5-X-533. Made with three ¼ in. rods 10 in. long. Price, each..... **95c**

5-X-131. Comb and brush tray, nickel-plated. Size 9 in. by 3½ in. Price, each..... **92c**

BATH OR SHAMPOO SPRAY



Rubber bound, brass, nickel plated spray, 3 inches diameter, with 5 feet pure white rubber tubing, with hold fast rubber bulb.
Lot No. **5X3019.** Price, each..... **95c**

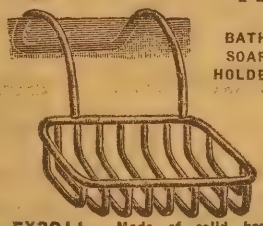
BATH SOAP HOLDER

5X3081. Solid brass, nickel plated, nicely finished and will fit any bath tub. Size 5x3¾ in. Price, each..... **59c**

SOAP DISH

5X3029. Made of solid brass heavily nickel plated, highly polished and finished with ball feet. Size 4½x3 in. Price, each..... **44c**

BATH SOAP HOLDER

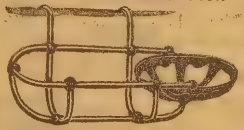


5X3011. Made of solid brass, heavily nickel plated and nicely finished. Will fit any bath tub. Size 5½x5 in. Price, each..... **75c**

SHOWER BATH SPRAY OR RING

5X3021. Ring is 11 inches diameter, solid brass, heavily nickel plated and highly polished; with 5 feet pure white rubber hose and hold fast rubber bulb. Price, each..... **$1.70**

SPONGE AND SOAP DISH



5X3013. Made of solid brass, nickel plated and highly polished. Will it any bath tub. Size 11x5 in. Price, each..... **$2.25**

SOAP DISH

5X3041. Made to fasten to wall. Solid brass, heavily nickel plated and highly polished. Complete with screws. Price, each..... **55c**

SOAP HOLDER

5X3037. Made of brass, heavily nickel plated, highly polished. Finished with ball feet. Size 5½x5 in. Price, each..... **55c**

TUMBLER HOLDERS

5-X-3065. Solid brass, heavily nickel plated and highly polished. Complete with screws. Price, each..... **66c**

TUMBLER AND TOOTH BRUSH HOLDER COMBINED

5-X-3066. Solid brass, heavily nickel plated and highly polished. Complete with screws. Price, each..... **78c**

TOOTH BRUSH HOLDER

This Holder is made of heavy brass, handsomely nickel plated. Just the thing where more than one in a family. Perfectly sanitary and up to date in every respect.

5-X-3004. 6¼ inches long. Each..... **21c**
5-X-3006. 8½ in. long. Each..... **27c**

BATH SEATS

5-X-3075. The rods are heavily nickel plated, ends are rubber covered to protect bath tub. The seat is of finished oak. Will fit any bath tub. Size 18x6 in. Price, each..... **80c**

5-X-3023. Bath Seat, nickel plated, full loop, rubber covered brass rods. Seat 18x6 in. Natural finish. Price, each..... **90c**

5-X-3025. Same as above, 5 coat white enamel finish. The handsomest Bath Seat made. Price, each..... **$1.00**

WHISK BROOM HOLDER

5-X-3035. Made of brass, heavily nickel plated, highly polished and complete with screws. Price, each..... **25c**

DOUBLE ROBE HOOKS

5X3007. Made of one piece of cast brass, heavily nickel plated and highly polished. Furnished complete with screws. Price, each..... **15c**

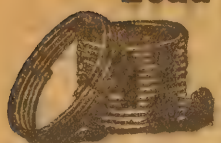
SINGLE ROBE HOOKS

5X3009. Made of one piece cast brass, heavily nickel plated and highly polished. Complete with screws. Price, each..... **11c**

DETACHABLE HANDLE BATH BRUSH

The ideal thing for your bathroom. Made of the highest class bristles and warranted to wear. Its construction is such that it will last a good many years.
Lot No. **5X3201.** Each..... **40c**

Lead Pipe.



We will furnish this pipe cut in lengths you may require. Prices based on present market conditions. We offer Lead Pipe subject to market changes.

5-X-2801. for waste pipe.

Diameter inch	1¼	1½	2	4
Wt. per ft.	2 lb.	3 lb.	4 lb.	5 lb.
Price per foot	30c	45c	60c	75c

5-X-2803. Medium Strong Lead Pipe.

Diameter inches	¾	1	1¼
Weight per foot	1½ lb.	2 lb.	2½ lb.
Price per foot	20c	30c	3 c

SHEET LEAD

5-X-2805 Sheets are 24 inches wide

Thickness, inches	1-32	1-16
Weight per square foot, lbs.	2	4
Price per square foot	$0.40	$0.62

IRON TRAPS

Cast Bath

5-X-2811. Complete with Nickel Plated Covers for Sinks, Laundry Tubs, Bath Tubs, etc., tapped side and bottom, for 1½ in. iron pipe.

4x3x1½ $1.35

Drum

5-X-1532. Size, 4x8 in. Tapped both sides for 1½ in. pipe. Shipping weight about 15½ lbs.

Price...$1.75

Cast Sink

5-X-1537. Cast iron with brass cleanout plug connected direct to sink with bolts. Tapped for 1½ inch pipe connection. Shpg. wgt. about 4½ lbs.

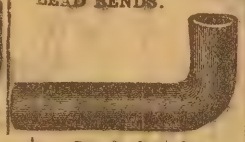
Price...$0.60

LEAD DRUM TRAPS

5-X-2813. Lead drum traps with plain brass trap screw, size 4"x9".
Price each...$2.95

5-X-2815. Lead drum traps with nickel plated brass trap screw, size 4"x9".
Price each...$3.25

LEAD BENDS.



LEAD BENDS WITH FERRULES.

Width 5½ ins. Inlet.

5-X-2819. 4 x 12
Each...$3.25

5-X-2821. 4 x 14
Each...$3.57

5-X-2825. 4 x 18
Each...$4.15

Standard grades.

SHORT BENDS.

5-X-2831. 4x12 in. $2.47

LONG BENDS

5-X-2837. 4x18 in. $3.25

CAST IRON CLOSET BENDS

5-X-2839. Adjustable Flange Closet Bend. Size, 4x18 inches. Tapped both sides for 1½-inch iron pipe. Shipping weight about 19 lbs. Price...$3.75

BRASS FERRULES.

Used in connecting Lead Waste Pipe to Soil Pipe.

5-X-2840. 1½ ins. x 2 ins.....Each 34c
5-X-2841. 2 ins. x 2 ins.....Each 49c
5-X-2843. 4 ins. x 4 ins.....Each 73c

COMBINATION LEAD AND IRON FERRULES.

	Length inches,	6	12
5-X-2817	1½x2 in. Price, each	64c	1.00
	1½x2 in. Price, each	64c	1.00
	2 in.... Price, each	69c	1.14
	4 in.... Price, each	1.28	2.10

PLUMBERS' SPUN OAKUM.

Used for calking soil pipe and fitting. Comes in 50 pound bales.

5-X-2907. Price per full bale...$5.75

5-X-2908. In less than full bales, per lb...0.13

Standard Lead Traps.

SHORT LEAD "S" TRAPS.

		Each
5-X-2851.	1¼ ins.	84c
5-X-2853.	1½ ins.	1.32

SHORT LEAD "S" TRAPS WITH IRON PIPE CONNECTIONS ON OUTLET END

5-X-2857. 1¼ ins. Price each...$1.47
5-X-2859. 1½ ins. Price each...2.10

LONG LEAD "S" TRAPS

Price Each

5-X-2863. 1¼ ins...$1.36
5-X-2865. 1½ ins...1.93

LONG LEAD "S" TRAPS.

With iron pipe connection on outlet end.

5-X-2871. 1¼ ins. Price each...$2.00
5-X-2873. 1½ ins. Price each...2.75

HALF "S" OR "P" LEAD TRAPS.

Price Each

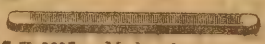
5-X-2879. 1¼ ins...$0.75c
5-X-2881. 1½ ins...1.10c

HALF "S" OR "P" LEAD TRAPS WITH IRON PIPE CONNECTIONS ON OUTLET END.

Price Each

5-X-2887. 1¼ ins...$1.38
5-X-2889. 1½ ins...1.86

PLUMBERS' SOLDER.



5-X-2895. Made of proper proportions of pure block tin and pig lead. Comes in bars weighing about 1½ lbs. each. We sell full bars only. Guaranteed to be the best plumbers' solder on the market.
Price per bar...66c

CALKING LEAD.

5-X-159. Price per pound 12½c

BABBITT METAL.

5-X-6501. We offer babbitt metal of several grades. Intended to be used in bearings of various kinds. The different grades of babbitt that we offer we guarantee to be of the very best composition for the purpose for which they are intended. The metals used are guaranteed to give firmness and have lasting qualities.

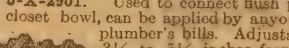
PREMIER BABBITT.

5-X-6503. A special mixture embodying anti-friction ingredients, used on high speed engines or in machines where speed and perfect bearings are required. Price per pound...$0.40

No. 3 BABBITT METAL.

5-X-6507. Used for bearings of all kinds of low speed machinery. Price per pound...$0.30

LEAD PIPE BENDING SPRINGS.



5-X-2897. Used for bending lead pipe. Made of the best quality of spring steel.

Size, inches	1¼	1½
Price, each	45c	48c

RUBBER EXTENSION ELBOWS.

5-X-2901. Used to connect flush pipe with closet bowl, can be applied by anyone. Saves plumber's bills. Adjustable from 3¼ to 5¼ inches from end of coupling to center of elbow.

Size, inches	1¼	1½
Price, each	48c	75c

BRASS SOLDERING NIPPLES—USED TO CONNECT LEAD WITH IRON PIPE.

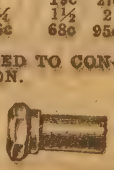
5-X-2903.

Size, inches			½	¾
Price, each			19c	27c
Size, inches	1	1¼	1½	2
Price, each	37c	46c	68c	95c

BRASS SOLDERING UNIONS—USED TO CONNECT LEAD WITH IRON.

5-X-2905.

Size, inches	⅜	½	¾	
Price, each	24c	27c	35c	
Size, inches	1	1¼	1½	2
Price, each	45c	59c	68c	90c



GASOLINE BLOW-TORCHES.

5-X-2911. Equipped with soldering iron attachment. Made of heavy brass and has non-leakable valves. The safest and best torch on the market. Fully guaranteed.

Capacity 1 qt. Price $5.50
Capacity 1 qt. Price...6.05

GASOLINE BULB BLAST PLUMBERS' FURNACE.

Fitted with shield to hold melting pot. This furnace will produce quicker and hotter flame than any other furnace of its kind on the market. **5-X-2913.** Price...$6.70

MELTING POT.

5-X-2915. To be used in connection with our Gasoline Bulb Blast Furnace. Price...60c

MELTING LADLES.

5-X-2917.

Size across bowl inches	3	5
Price	51c	$1.08

TAP BORER.

5-X-2921. Plumbers' tap borer.
Price...22c

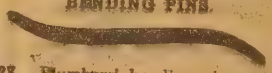
CALKING CHISEL.

5-X-2923. Plumbers' calking chisel, made of special tool steel; can supply straight, right or left hand offset.
Price each...30c

YARNING IRON.

5-X-2925. Plumbers' yarning iron, made of special tool steel. Price...30c

BENDING PINS.



5-X-2927. Plumbers' bending pins.
Price each...21c

OVAL SHAVE HOOKS.

5-X-2929. Plumbers' oval shave hook, crucible steel blade. Price each...22c

TURN PINS.

5-X-2931.

Size Nos.	1	2	3
Price each	12c	14c	18c

DRIFT PLUGS.

5-X-2933.

Size, in.	1	1½	1¾	2
Price each	10c	13c	15c	17c

BOX WOOD DRESSER.

5-X-2935. Plumbers' Box Wood Dresser.
Price each...70c

SOLDERING COPPERS

5-X-2937. Weight, 1 lb. each. Furnished without handles. Price, each...60c

5-X-2939. 2 lb. Soldering Copper. Each...$1.20

SOLDERING OUTFIT

A handy outfit for the man who wants to do repair work around the house. For outside work, we suggest that you include one of our blow torches described on this page. Five pieces complete: 1 1-lb. Soldering Copper, with handle, 1 Plumber's Scraper; 1 Bar of Solder, about 1¼ lbs.; 1 Coil of Wire Solder, 1 lb.; 1 Piece of Rosin.
No. 5-X-4900...$2.40

Faucets, Bibbs and Cocks

Fuller Pattern Plain Bibbs

Threaded for Iron Pipe Finished Brass

5-X-2967. Size, ½ inch..... $1.08
5-X-2969. Size, ¾ inch..... $1.23

Fuller Pattern Hose Bibbs

Threaded for Iron Pipe Finished Brass

5-X-2971. Size, ½ inch..... $1.23
5-X-2973. Size, ¾ inch..... $1.38

Fuller Pattern Plain Bibbs

With Flange Threaded for Iron Pipe Finished Brass

5-X-2975. Size, ½ inch..... $1.23
5-X-2977. Size, ¾ inch..... $1.38

Compression Hose Bibbs

With Flange Threaded for Iron Pipe Finished Brass

5-X-2959. Size, ½ inch..... $1.23
5-X-2961. Size, ¾ inch..... $1.38

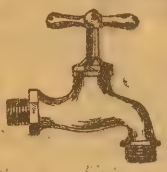
Threaded for Iron Pipe Finished Brass

5-X-2951. Size, ½ inch..... 97c
5-X-2953. Size, ¾ inch..... $1.18

Compression Hose Bibbs

With Flange Threaded for Iron Pipe Finished Brass

5-X-2963. Size, ½ inch..... $1.32
5-X-2965. Size, ¾ inch..... $1.50



Threaded for Iron Pipe Finished Brass

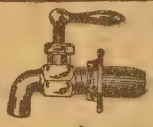
5-X-2955. Size, ½ inch..... $1.08
5-X-2957. Size, ¾ inch..... $1.25

Fuller Pattern Hose Bibbs

With Flange Threaded for Iron Pipe Finished Brass

5-X-2979. Size, ½ inch..... $1.32
5-X-2981. Size, ¾ inch..... $1.50

Fuller Pattern Plain Bibbs



With Flange for Lead Pipe Connection Finished Brass

5-X-2991. Size, ½ inch..... $1.40
5-X-2993. Size, ¾ inch..... $1.60

Fuller Pattern Plain Bibbs

For Lead Pipe Connection Finished Brass

5-X-2983. Size, ½ inch..... $1.10
5-X-2985. Size, ¾ inch..... $1.18

Fuller Pattern Hose Bibbs

For Lead Pipe Connection Finished Brass

5-X-2987. Size, ½ inch..... $1.14
5-X-2989. Size, ¾ inch..... $1.27

Fuller Pattern Hose Bibbs

With Flange for Lead Pipe Connection Finished Brass

5-X-2995. Size, ½ inch..... $1.50
5-X-2997. Size, ¾ inch..... $1.75

All Faucets Shown Above Are Furnished Nickel Plated At Twenty Cents Additional

"T" Handle Brass Stop for Iron Pipe

5-X-3011.

Size	Each
½ in...	$0.73
¾ in...	1.05
1 in...	1.83
1¼ in...	3.15
1½ in...	5.25

"T" Handle Brass Stop and Waste for Iron Pipe

5-X-3013

Size	Each
½ in...	$0.75
¾ in...	1.06
1 in...	1.85
1¼ in...	3.20
1½ in...	5.30

Lever Handle Brass Stop for Iron Pipe

5-X-3019

Size	Each
½ inch...	$0.73
¾ inch...	1.05
1 inch...	1.83
1¼ inch...	3.15
1½ inch...	5.25

Lever Handle Brass Stop and Waste for Iron Pipe

5-X-3021.

Size	Each
½ inch....	$0.75
¾ inch....	1.06
1 inch....	1.85
1¼ inch....	3.20
1½ inch....	5.30

"T" Handle Brass Stops for Lead Pipe

5-X-3015.

Size	Each
½ inch...	$0.84
¾ inch...	1.45
1 inch...	2.15

"T" Handle Brass Stop and Waste for Lead Pipe

5-X-3017

Size	Each
½ inch...	$0.85
⅝ inch...	1.50

Lever Handle Brass Stops for Lead Pipe

5-X-3023

Size	Each
½ inch...	$0.84
¾ inch...	1.45
1 inch...	2.15

Lever Handle Brass Stop and Waste for Iron Pipe

5-X-3025.

Size	Each
½ inch....	$0.85
¾ inch....	1.50

Brass Hydrant Cock With Waste for Iron Pipe

5-X-3027

Size	Each
¾ inch....	$1.38
1 inch....	2.37
1¼ inch....	3.30

Low Tank Closet Valves

5-X-1300. Is that low tank closet leaky? Do you know that water trickling down into the bowl will turn your meter more than 5 cents' worth a day or $18.00 worth a year? Why not stop it when 20 cents will buy a new valve? It's easily replaced. Just measure the diameter of the old ball, order a new one, unscrew the old valve and put the new one in its place. Valves come in three sizes, all made of pure rubber. Shipping weight, about 6 ounces.

2 -inch. Price..... 22c
2½-inch. Price..... 30c
2¾-inch. Price..... 32c

Rubber Fuller Balls

5-X-1302. Rubber Balls for Fuller bibbs. Sizes for bibbs, ½, ⅝. **State size wanted and whether for hot or cold water.** Shipping weight, 2 balls, about 2 ounces.
Price for 2 balls..... 5c

Compression Sill Cock for Iron Pipe

5-X-3035.

Each
Size, ¾ inch..... $0.97

Plain Laundry Compression Bibb

5-X-3501.

Polished brass. For ½-inch iron pipe. Shipping wt., about 8 oz.
Price 91c

Hose Laundry Compression Bibb

5-X-3502.

Same as No. 5-X-3501 but tapped for ½ or ¾-inch hose connection. Female Thread.
Price $1.00

Compression Sill Cock with Loose Key

5-X-3500

Polished with cast key, ready for use. Size, ¾ inch. Shipping weight, about 1 lb.
Price $1.05

PLUMBER'S FRIEND FORCE CUPS

No. 5X3033. Used to force obstruction from closets, lavatories and sinks. Place the rubber cup over the opening and press down; this will form a suction and remove almost any obstruction, saving a plumber's bill which will easily pay for the force cup many times over. Complete with 3-foot handle.
Price, each 32c

Boiler Drain Cock

5-X-2129. Solid Brass, White Finish Hose Connection, for range or heating boilers ..70c

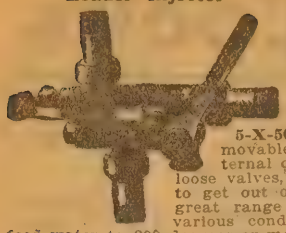
Hydrant Clamps

21-X-3029

Size	Each
Size, ½ inch.....	8c
Size, ¾ inch.....	9c
Size, 1 inch.....	10c
Size, 1¼ inch.....	11c

INJECTORS AND LUBRICATORS

Leader Injector



$8.95

5-X-5002. Has no movable parts in its internal construction. No loose valves, rings or springs to get out of order. Has a great range of work under various conditions. It heats feed water to 200 degrees or more, according to conditions, making it very efficient, and by feeding through a closed "heater," efficiency is unequalled.

No. of Injector.	Size of Pipes. Steam Pipe.	Suction and Feed.	Horse Power of Boiler Will Feed.	Gallons per hour 60 lbs. Steam.	Price Each.
1	⅜	⅜	3 to 7	60	$ 8.95
2	⅜	⅜	7 to 10	90	10.00
3	½	½	12 to 18	150	12.35
4	½	½	18 to 25	220	14.00
5	¾	¾	25 to 35	300	16.80
6	¾	¾	35 to 45	400	19.60
7	¾	1	45 to 60	500	22.40
8	¾	1	60 to 70	600	25.20
9	1	1¼	70 to 90	750	30.80
10	1	1¼	100 to 125	1000	36.40

Chicago Automatic Injector

5-X-6008. Simplest automatic injector. Consists of three tubes, a body or shell and one check valve and bushing, held to place by screw thread joints and cannot drop out and become lost. The steam jet and forcing tube may be removed by monkey wrench and cleaned without breaking any pipe joints or removing injector from boiler.

Will start low from 15 to 20 lbs. steam pressure on 4 ft. lift and will work high from 135 to 145 lbs. steam pressure or on a 20 to 22 ft. lift with a 60 to 90 lbs. steam pressure. Will work water 120 to 125 degrees hot.

Size.	Pipe Con. Inches.	Cap. per Hour Max.	H. P. based on Ordinary Tub. Boiler.	Price.
No. 00	⅜	80	4 to 11	$ 4.80
No. 0	½	135	10 to 19	5.40
No. 1	½	180	15 to 24	6.00
No. 2	¾	260	18 to 34	7.50
No. 3	¾	355	20 to 47	9.00
No. 4	1	475	40 to 64	12.00
No. 5	1	600	45 to 80	13.50
No. 6	1¼	800	55 to 106	16.50

Brass Steam Whistles

5-X-6535.

Made of high grade steam metal and furnished complete with spring valves.

Diam. of Bell.	Size of Pipe Connection.	Price.
1	¼	$ 2.40
1¼	⅜	2.90
1½	⅜	3.10
2	¾	4.25
2½	¾	5.00
3	1	6.55
3½	1	8.85
4	1¼	11.55

Water Gauges

5-X-9051. With brass body, iron wheels, two guards to protect glass tube.

Size, Inches.	Glass Inches.	Price Each.
⅜	⅝x10	$2.10
½	⅝x12	2.40
¾	¾x16	3.10

Scotch Glass Tubes for Water Gauges

5-X-9525.

Length, In.	Price Doz. ½ In.	Price Doz. ⅝ In.	Price Doz. ¾ In.
10	$1.35	$1.36	$1.66
11	1.46	1.47	1.80
12	1.62	1.63	1.98
13	1.75	1.76	2.00
14	1.89	1.90	2.20
15	2.00	2.04	2.85

Polished Brass Oil Cups

5-X-6019. High grade oil cups made of brass nicely polished.

Diam. of Body.	Pipe Size. Inches.	Price Each.
¾	⅛	$0.26
1	¼	.34
1¼	¼	.50
1½	⅜	.75
2	½	1.50

Plain Brass Grease Cups

5-X-6021.

Size.	Inside Dia., Inches.	Shank Thread.	Grease, Ozs.	Price Each.
00	1	¼	½	$0.39
0	1¼	¼	2/3	.51
1	1½	¼	1	.64
2	2	⅜	2	.84
3	2½	½	3½	1.20
4	3	½	5	1.64

Automatic Grease Cups for Bearings of All Kinds

5-X-6602.

Size.	Inside Dia., Inches.	Shank Pipe Thread.	Cap. (Grease), Ounces.	Price Each.
00	⅞	⅛	1/3	$1.05
0	1¼	¼	1	1.40
1	1½	¼	1½	1.74
2	2	⅜	3	2.23
3	2½	½	6	3.00

Sight-feed Snap Lever Glass Oil Cups

5-X-6601. We wish to call your particular attention to the fact that it is not necessary to adjust the feed each time, it being so constructed that when the desired feed is once set it can be stopped and started at will without resetting. This particular feature will save much trouble and annoyance.

Size	Outside Dia. of Glass	Height of Glass	Capacity, Ounces	Shank Pipe Thread	Brass finish Price each
0	1¼	1⅛	⅝	⅛	$1.50
1	1½	1⅜	1	¼	1.65
1½	1¾	1⅝	1½	¼	1.78
2	2	1⅞	2½	⅜	1.89
3	2¼	2⅛	4	⅜	2.15
4	2½	2⅜	5	⅜	2.65
5	3	3	10	½	3.60

Steam Gauges

5-X-9511. Japanned iron case brass ring, complete with cock. They should not be used on traction or portable rigs. Always use a syphon with all steam gauges. These gauges are guaranteed to register accurately up to 200 pounds. Each gauge is packed in a wooden box.

Size dials, inches	3½	4½	5
Price, each	$3.50	$3.60	$3.75

Rubber Gauge Glass Washers

5-X-9523.

	Price per doz.
For ½ inch gauge glass	$0.10
For ⅝ inch gauge glass	.12
For ¾ inch gauge glass	.13

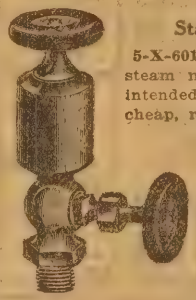
Chicago Double Connection Sight Feed Lubricator

FOR STATIONARY ENGINES

5-X-6011. The condenser valve is a separate piece and not part of the body, thus insuring ease of cleaning and small cost for repairs. It is provided with an ample heating chamber, which insures the oil remaining fluid even when exposed to the most severe weather. The lower feed iron is provided with a drain stem by which the sight glass may be blown out and cleaned without removing from lubricator. Each lubricator is subjected to a rigid test before leaving the factory and guaranteed to work perfectly if connected and operated properly.

Size	For Cylinder Inches	Pipe Thread on Pipe Arm	Price Brass Finish
1/3 pt.	under 10	½ inch	$ 8.90
½ pt.	10 to 12	½ inch	9.30
1 pt.	12 to 18	½ inch	11.30
1 qt.	18 to 30	½ inch	13.90
½ gal.	30 and over	¾ inch	21.50

Standard Lubricator



5-X-6017. Made of the best steam metal, wood handles, and intended for those who desire a cheap, reliable lubricator.

No.	Diameter, Inches	Size Thread	Price Each
1	1½	⅜	$1.55
2	1¾	½	1.70
3	2	½	1.90
4	2¼	½	2.10
5	2½	½	2.45
6	3	¾	3.10

Sight Feed Single Connection Lubricator

5-X-6013. For stationary and traction engines, steam pumps, air compressors and all classes of steam cylinders.

This lubricator will feed the heaviest oils even when exposed to the severest weather and when once adjusted will feed regularly down to the last drop. The steam can be shut off from all parts of the lubricator and any part be repaired, or valve repacked, without stopping engine or shutting off pressure from steam pipe.

Size	¼ pt.	1/3 pt.	½ pt.	1 pt.	1 qt.
Pipe thread, in.	½	½	½	½	½
Price, each	$7.90	$8.20	$8.70	$10.50	$12.70

Double Connection Sight Feed Lubricator

5-X-6015. For steam pumps and stationary and portable engines.

This is a medium priced, reliable lubricator for use on steam pumps and stationary engines which are exposed to the cold, and possesses all the advantages and features as contained in the Chicago single connection lubricator of the same style manufactured.

Size	¼ pt.	1/3 pt.	½ pt.	1 pt.	1 qt.
Pipe thread, in.	½	½	½	½	½
Price, each	$7.60	$8.00	$8.40	$10.20	$12.50

Pipe? Get Our Low Money Saving Prices

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago

SOIL PIPE AND FITTINGS

QUARTER BENDS

No. 5X2309. 2 in., Standard 56c
No. 5X2311. 2 in., Ex. Hvy.....77c
No. 5X2313. 4 in., Standard 98c
No. 5X2315. 4 in., Ex. Hvy..$1.19

QUARTER BENDS—SIDE INLET—RIGHT OR LEFT HAND

No. 5X2317. 4 in., Std., 2 in. inlet.....$1.75
No. 5X2319. 4 in., Ex. Hvy., 2 in. inlet....$1.98
Cut shows right side inlet.

QUARTER BENDS—HEEL INLET

No. 5X2325. 4 in., Std., 2 in. inlet.....$1.75
No. 5X2327. 4 in., Ex. Hvy., 2 in., inlet..$1.98

QUARTER BENDS—DOUBLE HUB

No 5X2333. 4 in., Standard $1.68
No. 5X2335. 4 in., Ex. Hvy. $1.96

LONG QUARTER BENDS

No. 5X2341. 4x8 in., Std. $2.10
No. 4x18 in., 5X2343. Ex. Hvy.....$2.59

SIXTH BENDS

No. 5X2345. 2 in., Standard 56c
No. 5X2347. 2 in., Ex. Hvy. 63c
No. 5X2348. 4 in. Standard 84c
No. 5X2349. 4 in., Ex. Hvy..$1.05

EIGHTH BENDS

No 5X2350. 2 in. Standard 49c
No. 5X2351. 2 in., Ex. Hvy. 56c
No. 5X2353. 4 in., Standard 84c
No. 5X2355. 4 in., Ex. Hvy..$1.05

"T" BRANCHES

No. 5X2357. 2x2 Standard 77c
No. 5X2359. 2x2 Ex. Hvy. $1.05
No. 5X2360. 4x2 Standard $1.19
No. 5X2361. 4x2 Ex. Hvy. $1.54
No. 5X2363. 4x4 Standard...$1.40
No. 5X2365. 4x4 Ex. Hvy....$1.96

SANITARY "T" BRANCHES

No. 5X2367. 2x2 Standard 77c
No. 5X2369. 2x2 Ex. Hvy. $1.05
No. 5X2371. 4x2 Standard $1.19
No. 5X2373. 4x2 Ex. Hvy....$1.54
No. 5X2375. 4x4 Standard...$1.61
No. 5X2377. 4x4 Ex. Hvy....$1.96

SANITARY "T" BRANCH

With Side Inlet Tapped 1½ in. for Iron Pipe, Right or Left Hand.
No. 5X2379. 4x4 in. tapped 1½ in., Std..$3.70
No. 5X2381. 4x4 in., tapped 1½ in., Ex. Heavy $4.06

SANITARY "T" BRANCH WITH SIDE INLET—RIGHT OR LEFT HAND

Cut shows L. H. Inlet.
No. 5X2383. 4x4, with 2 in. inlet, Std.....$3.00
No. 5X2385. 4x4, with 2 in. inlet, Ex. Hvy....$3.36

ADJUSTABLE ROOF FLANGE

Made of Galvanized Iron—will fit any pitch.
No. 5X1091. 4 in..$1.25
No. 5X1091½. 5 in. $1.60

Cast Iron Soil Pipe

Every length of Soil Pipe tested and fully guaranteed. Comes in 5-ft. lengths only.

SINGLE HUB SOIL PIPE

No. 5X2301. 2 in. Standard single hub $1.73
No. 5X2303. 2 in., Ex. Hvy. single hub $2.66
No. 5X2305. 4 in., Standard single hub $3.07
No. 5X2307. 4 in. Ex. Hvy. single hub $5.60

DOUBLE HUB SOIL PIPE

No. 5X2302. 2 in., Standard double hub.....$1.87
No. 5X2304. 2 in., Ex. Hvy. double hub.....$2.30
No. 5X2306. 4 in. Standard double hub.....$3.20
No. 5X2308. 4 in., Ex. Hvy. double hub.....$5.87

SIDE OPENING BRANCHES TAPPED FOR IRON PIPE

No. 5X2387. 2x1½ Standard 98c
No. 5X2389. 2x1½ Ex. Hvy. $1.19
No. 5X2391. 2x2 Standard 98c
No. 5X2393. 2x2 Ex. Heavy $1.19
No. 5X2395. 4x1¼ Std...$1.40
No. 5X2397. 4x1¼, Ex. Hvy.$1.75
No. 5X2399. 4x1½ Std.....$1.40
No. 5X2401. 4x1½ Ex. Hvy.$1.75
No. 5X2403. 4x2 Standard $1.40
No. 5X2405. 4x2 Ex. Hvy...$1.75

SANITARY "T" BRANCH TAPPED FOR IRON PIPE

No. 5X2407. 2 x 1½ Standard $1.05
No. 5X2409. 2x1½ Ex. Hvy. $1.26
No. 5X2411. 2x2 Standard $1.05
No. 5X2413. 2x2 Ex. Hvy. $1.26
No. 5X2415. 4x1¼ Std....$1.75
No. 5X2417. 4x1¼ Ex. Hvy.$2.17
No. 5X2419. 4x1½ Std.....$1.75
No. 5X2421. 4x1½ Ex. Hvy.$2.17
No. 5X2423. 4x2 Std.....$1.75
No. 5X2425. 4x2 Ex. Hvy...$2.17

"T" BRANCH WITH HAND HOLE FOR CLEAN OUT

No. 5X2431. 4 in., Standard $2.59
No. 5X2433. 4 in., Ex. Hvy. $3.22

CROSSES

No. 5X2439. 4 x 4 Standard $2.52
No. 5X2441. 4 x 4 Ex. Hvy.....$3.01

SANITARY CROSSES

No. 5X2447. 4 x 2 Standard $2.52
No. 5X2449. 4 x 2 Ex. Hvy.....$3.01
No. 5X2451. 4 x 4 Standard $2.52
No. 5X2453. 4 x 4 Ex. Hvy.....$3.01

TAPPED CROSSES

Side Opening for Standard Iron Pipe

No. 5X2459. 2x1½ Standard $1.61
No. 5X2461. 2x1½ Ex. Hvy. $1.96
No. 5X2463. 2x2 Standard $1.61
No. 5X2465. 2x2, Ex. Hvy. $1.96
No. 5X2471. 4x1½ Std.....$1.96
No. 5X2473. 4x1½ Ex. Hvy.$2.38
No. 5X2475. 4x2 Std.....$1.96
No. 5X2477. 4x2 Ex. Hvy..$2.38

SANITARY CROSSES TAPPED FOR STANDARD IRON PIPE

No. 5X2483. 2 x 1½ Standard $1.75
No. 5X2485. 2 x 1½ Ex. Hvy.....$2.17
No. 5X2487. 2x2 Standard $1.75
No. 5X2489. 2x2 Ex. Hvy..$2.17
No. 5X2495. 4x1½ Std.....$2.45
No. 5X2497. 4x1½ Ex. Hvy.$3.01
No. 5X2499. 4x2 Std.....$2.45
No. 5X2501. 4x2 Ex. Hvy..$3.01

"Y" BRANCHES

No. 5X2502. 2x2 Standard 77c
No. 5X2503. 2x2 Ex. Hvy. $1.05
No. 5X2504. 4x2 Standard $1.19
No. 5X2505. 4x2 Ex. Hvy. $1.54
No. 5X2506. 4x4 Std.....$1.61
No. 5X2507. 4x4 Ex. Hvy...$1.96

OFF-SETS

No. 5W2539. 2 x 12 Standard $1.61
No. 5X2541. 2x12 Ex. Hvy. $1.96
No. 5X2543. 4x4 Standard $1.40
No. 5X2545. 4x4 Ex. Hvy...$1.75
No. 5X2547. 4x6 Standard..$1.54
No. 5X2549. 4x6 Ex. Hvy..$1.96
No. 5X2551. 4x8 Standard..$1.75
No. 5X2553. 4x8 Ex. Hvy...$2.17
No. 5X2557. 4x10 Standard.$2.10
No. 5X2559. 4x10 Ex. Hvy..$2.59
No. 5X2561. 4x12 Standard.$2.24
No. 5X2563. 4x12 Ex. Hvy..$2.80

VENTILATING BRANCHES WITH SIDE INLET

No. 5X2569. 4x2 Standard $1.96
No. 5X2571. 4x2 Ex. Hvy. $2.59

TAPPED INCREASERS—SMALL OPENING TAPPED FOR STANDARD PIPE

No. 5X2573. 1½ to 4 in. Standard $2.10
No. 5X2575. 1½ to 4 in. Ex. Hvy.....$2.59
No. 5X2577. 2 to 4 in. Standard $2.10
No. 5X2579. 2 to 4 inch Ex. Hvy. $2.59

DOUBLE HUBS

No. 5X2585. 2 in. Standard 56c
No. 5X2587. 2 in. Ex. Hvy. 63c
No. 5X2589. 4 in. Standard 84c
No. 5X2590. 4 in. Ex. Hvy. $1.05

VENTILATING CAPS

No. 5X2599. 4x6 Standard $1.26
No. 5X2601. 4x6 Ex. Hvy. $1.54
No. 5X2603. 4x12 Standard $2.52
No. 5X2605. 4x12 Ex. Hvy. $3.64

ROOF PLATES

No. 5X2607. 4 in. Standard $1.05
No. 5X2609. 4 in. Ex. Hvy...$1.26

PIPE RESTS

No. 5X2625. 2 in. Standard...42c
No. 5X2627. 2 in. Ex. Hvy...56c
No. 5X2629. 4 in. Standard...56c
No. 5X2631. 4 in. Ex. Hvy....73c

REDUCERS

No. 5X2581. 4 to 2 in. Standard 56c
No. 5X2583. 4 to 2 in. Ex. Hvy. 63c

"S" TRAPS

No. 5X2634. 4 in. Standard $2.10
No. 5X2635. 4 in. Ex. Hvy.....$2.59

HALF "S" TRAPS

No. 5X2645. 2 in. Standard $1.26
No. 5X2647. 2 in. Ex. Hvy.....$1.54
No. 5X2649. 4 in. Standard $2.10
No. 5X2651. 4 in. Ex. Hvy....$2.59

RUNNING TRAP

No. 5X2657. 4 in. Std. $2.10
No. 5X2659. 4 in. Ex. Hvy.....$2.59

"S" TRAPS WITH VENT

No. 5X2665. 4 in. with 2 in. vent, Standard $3.22
No. 5X2667. 4 in. with 2 in. vent, Ex. Hvy. $3.85

HALF "S" TRAPS WITH VENT

No. 5X2681. 4 in. with 2 in vent, Std. $3.22
No. 5X2683. 4 in. with 2 in. vent, Ex. Hvy.....$3.85

"S" TRAPS WITH HAND HOLE AND COVER

No. 5X2689. 4 in. Std. $3.50
No. 5X2691. 4 in. Ex. Hvy.....$4.35

RUNNING TRAP WITH VENT

No. 5X2693. 2 in. with 2 in. vent, Standard $1.75
No. 5X2695. 2 in. with 2 in. vent, Ex. Hvy. $2.17
No. 5X2697. 4 in. with 4 in. vent Std.....$3.27
No. 5X2699. 4 in. with 4 in. vent, Ex. Hvy.....$3.85

HALF "S" TRAPS WITH HAND HOLE AND COVER

No. 5X2713. 4 in. Std. $3.50
No. 5X2715. 4 in. Ex. Hvy.....$4.34

RUNNING TRAPS WITH HAND HOLE AND COVER

No. 5X2745. 4 in. Std. $3.50
No. 5X2747. 4 in. Ex. Hvy.....$4.34

LONG INCREASERS FOR CALKING

No. 5X2717. 2 to 4x24 in. long, Standard $1.68
No. 5X2719. 2 to 4x24 in. long, Ex. Hvy.....$2.10
No. 5X2737. 4 to 5 in., 30 in. long, Standard $2.80
No. 5X2739. 4 to 5 in., 30 in. long, Ex. Hvy.....$3.50

CLEAN OUT PLUGS

Iron Ferrule with Brass Trap Screw.
No. 5X2759. 2 in. 56c
No. 5X2761. 4 in. 84c

CAST IRON CESSPOOLS WITH BELL TRAPS

No. 5X2753. 6x6 .....98c
No. 5X2755. 9x9 .....$1.26
No. 5X2757. 12x12 ...$2.28

SAVE 25 TO 40% ON WROUGHT PIPE, CASING AND BOILER TUBES

STANDARD IRON PIPE

NEW GAS, WATER AND STEAM PIPE

6-X-1. This pipe is brand new, fully tested and guaranteed. The very best quality made, and easy to cut and thread when desired. **The Size of the Pipe** is always determined by its inside diameter. It comes in random lengths ranging from 16 to 21 foot, that is, we sell it only in full lengths just as it comes from the mill and any specifications calling for exact lengths must be charged for, extra for threading as per specifications shown below. We will, however, fill your order for lengths as nearly as possible according to your requirements. Each length threaded on both ends, fitted with coupling on one end.

The following prices are for full lengths only and where it is ordered in cut or specified lengths there will be an additional charge for the threading at both ends. (See table below.) No couplings are furnished with pipe cut or ordered in special lengths. Our quotations below are based on latest market prices and are exceedingly low. We cannot make a firm price on pipe, and all quotations made are subject to market changes.

Our prices are for quantities up to 1,000 feet. We solicit special inquiries in large quantities. We will quote freight prepaid prices on application.

ORDER BY LOT No. 6-X-1

Inside Diameter Inches	Outside Diam. In.	Weight Per Ft., Lbs.	Price Per Ft., Black	Price Per Ft., Galv.	Extra Threads Each
One-eighth	0.40	0.24	$0.05	$0.07	$0.02½
One-quarter	0.54	0.42	.05	.07	.02½
Three-eighths	0.67	0.56	.05	.07	.02½
One-half	0.84	0.84	.07	.08½	.02½
Three-quarters	1.05	1.12	.08½	.10	.02½
One	1.31	1.67	.12	.14	.03
One and ¼	1.66	2.24	.16	.20	.03½
One and one-half	1.9	2.68	.18	.25	.04
Two	2.87	3.61	.26	.32	.05
Two and one-half	2.87	5.74	.40	.50	.06
Three	3.5	7.54	.55	.70	.07
Three & one-half	4.	9.00	.70		.10
Four	4.5	10.66	.80		.12
Four & one-half	5.	12.49	.87		.18
Five	5.56	14.50	1.05		.27
Six	6.62	18.76	1.50		.35

We can furnish all sizes up to 12 in. Write for prices on larger sizes.

PIPE CASINGS

6-X-7. We have a large quantity of overhauled lap welded wrought casing which is as good as new. The threads are newly cut and each length is fitted with a new coupling. It is not as heavy as standard pipe, but it will stand equally as much and even greater pressure.

This casing can be used for almost any purpose for which standard black pipe is used, and it is especially recommended for water, gas, and oil lines. Owing to the fact that it is lighter than the standard pipe, it has finer threads. Regular casing threads 14 to the inch. In connection with this casing we can furnish a full line of standard fittings which you will find quoted under the head of "Casing Fittings." These fittings being made to work in connection with the casing.

ORDER BY LOT No. 6-X-7

Inside Diam., Inches	Outside Diam., Inches	Approx. Weight per ft., lbs.	Price per ft.
One and ¾	2	2	$0.15
Two and ¾	3	3½	.25
Three	3¼	4	.30
Three and ¼	3½	4½	.32
Three and ¾	4	5½	.35
Four and ¼	4½	6¾	.50
Five and ⅝	6	10¾	.90
Six and one-quarter	6⅝	13	1.10
Seven and ⅝	8	15	1.25

BOILER TUBES FOR RE-TUBING PURPOSES

6-X-9. We offer below an opportunity to purchase overhauled selected boiler tubes at prices that mean an enormous saving to you. These tubes are carefully inspected before shipment, and we guarantee them absolutely satisfactory for retubing boilers of any kind.

We ship them forward with the understanding that you will be satisfied with them, and give you the privilege, upon inspection, to return them to us, provided you do not find them up to our representations.

We cut these tubes to lengths. They have square ends, are straight, and are practically free from rust and scales.

Outside Diam., In.	Thickness, In.	Weight per ft.	Price per ft.
Two	.095	1.92	$0.16
Two and one-quarter	.095	2.17	.18
Three	.109	3.25	.20
Three and ¼	.120	4.50	.23
Three and one-half	.120	4.32	.26
Four	.134	5.47	.35
Four and one-half	.134	6.17	.50
Six	.165	10.50	1.00

Subject to Market Changes.

OVERHAULED IRON PIPES

6-X-5. For Steam, water, gas, oil, railing and general purposes. This pipe is known as "Rejuvenated" or overhauled pipe, that is, it represents material that comes to us in connection with various contracts we have, and before shipment is put through our shops and thoroughly overhauled, bad ends cut off, properly re-threaded where necessary and furnished with good couplings throughout. Each length is therefore complete with threads and couplings, unless instructed to the contrary. We paint this pipe with a combination asphalt and graphite paint before shipment. It can be used for all general purposes. It is straight and free from material defects. It comes in random lengths. Prices named below are based on ordinary requirements ranging up to 1000 feet. On application we will quote freight prepaid prices in ordinary quantities, or if you are in the market for a carload or more of this material, write for special freight prepaid prices.

All pipe sold at the following prices is on the basis of pipe furnished in random lengths and not where ordered in specified lengths. In such cases, we charge extra for cutting as per specifications shown below. Pipe ordered cut to length is not furnished with couplings. We will furnish pipe in any special length with plain ends, subject to stock on hand and will charge for cutting at one-half (½) the rate we charge for extra threads; for instance:

1 inch pipe cut to 4 foot, threaded two ends; our price is 6½c per foot, making 26c for the 4 foot; plus the cost of 2 threads at 3c each, 6c, making a total cost of 32c.

Our stock of overhauled pipe includes practically every size known. We list, however, only the regular staple sizes and suggest when you are in the market for a large quantity of pipe, or for pipe in very large sizes, that you write us fully as to your requirements. We cannot furnish overhauled pipe in galvanized material. It comes in black only.

ORDER BY LOT No. 6-X-5

Inside Diameter, Inches	Outside Diam., In.	Weight per ft. Lbs.	Price per ft. Black	Ex. Threads Each
One-eighth	0.40	0.24	$0.03	$0.02
One-fourth	0.54	0.42	.03	.02½
Three-eighths	0.67	0.56	.03½	.02½
One-half	0.84	0.84	.04½	.02
Three-fourths	1.05	1.12	.05½	.02¼
One	1.31	1.67	.07½	.03
One and one-quarter	1.66	2.24	.10	.03½
One and one-half	1.9	2.68	.13	.04
Two	2.37	3.61	.18	.05½
Two and one-half	2.87	5.74	.25	.06
Three	3.5	7.54	.35	.07
Three and one-half	4.	9.00	.45	.10
Four	4.5	10.66	.58	.12
Four and one-half	5.	12.49	.65	.18
Five	5.56	14.50	.75	.27
Six	6.62	18.76	1.30	.35
Seven	7.62	23.27	1.50	.50
Eight	8.62	28.18	1.75	.75

Prices on larger sizes on application

SPECIAL OFFERINGS in PIPE

100,000 ft. 20" Spiral Riveted Asphalted Steel Pipe, made by Abendroth & Root Manufacturing Company, complete with couplings; weight approximately 50 lbs. per foot.

Price, per foot **$2.00**

SPECIAL OFFER

On Pipe for Natural Gas!

200,000 ft. of Pipe for natural gas. This pipe we furnish in random lengths anywhere from 12 to 32 ft., ends trimmed, plain ends. This pipe can be used for laying natural gas lines, or can be welded as it is laid. This does away with couplings and makes a better job. It has been found very satisfactory throughout the Oklahoma fields, and our price on the sizes mentioned, is as follows:

Outside Diameter, inches	2	2¼	3	3¼	3½	4
Weight, per foot	2	2½	3¼	4	4½	5½
Price, per foot	15c	17c	24c	26c	30c	38c

F. O. B. CARS CHICAGO

CAST IRON

FITTINGS

MALLEABLE

Tee.

Bushing.

Return Bend Closed.

45-deg. Elbow.

Nipple.

Union.

Side Opening Elbow.

Reducing Elbow.

Reducer.

Floor Plate

Cross.

Plug.

Reducing Tee.

Flange Union.

Elbow.

Street Elbow.

Lock Nut.

Return Bend Open

Cap.

Ceiling Plate.

Cast Iron Fittings

For Standard Wrought Iron Pipe are made of the best grade of material, carefully tapped, inspected before shipment, and guaranteed with uniform and perfect threads, suitable for a working pressure up to 125 lbs.; used on power plants, low pressure steam and hot water plants. In ordering fittings be sure and give the inside measurements of the pipe you will use the fittings with, as all pipe is listed by inside measurement only and fittings correspond. **Give figure, number and price when ordering.** Sizes not listed, furnished on application.

Sizes.		½	¾	1	1¼	1½	2	2½	3	3½	4	5	6	8
No. 21X1.	Elbows, Black	.09	.14	.15	.22	.27	.39	.69	1.04	1.49	1.68	2.79	3.61	9.48
No. 21X2.	Elbows, R. & L., Black	...	.14	.18	.23	.32	.45	...	...	...	...	...	...	...
No. 21X3.	Tees, Black	...	.18	.19	.32	.39	.57	1.02	1.53	2.10	2.46	4.20	5.62	13.68
No. 21X4.	Crosses, Black	...	.30	.38	.60	.75	1.03	1.83	2.69	3.78	4.42	7.72	10.17	24.55
No. 21X5.	Plugs, Black	.03	.05	.05	.08	.11	.15	.24	.35	.53	.60	1.23	1.79	3.85
No. 21X6.	Plugs, Galv.	.05	.08	.11	.15	.20	.27	.50	.69	1.06	1.10	...	...	...
No. 21X7.	Bushings, Black	.05	.06	.08	.09	.11	.17	.24	.35	.48	.59	1.08	1.46	3.21
No. 21X8.	Bushings, Galv.	.12	.15	.18	.20	.26	.39	.60	.84	1.11	1.73	1.60	3.51	7.72
No. 21X9.	Caps, Black	...	...	...	...	...	...	...	...	...	...	1.68	2.20	4.00
No. 21X10.	Couplings, R. & L.	.15	.23	.27	.35	.42	.69	...	...	...	...	...	...	...
No. 21X11.	Couplings, Black	.11	.15	.18	.25	.30	.39	.42	.84	1.11	1.73	2.33	3.36	3.61
No. 21X12.	Couplings, Galv.	.15	.18	.25	.35	.45	.57	.77	1.11	1.49	1.95	...	...	...
No. 21X13.	Flange Unions, Black	.57	.65	.72	.89	1.10	1.41	1.75	2.10	2.52	2.94	4.58	5.55	...
No. 21X14.	Return Bends, C. P., Black	...	.27	.30	.39	.56	.80	1.68	2.37	...	...	...	...	...
No. 21X15.	Return Bends, O. P., Black	...	.38	.42	.56	.77	1.11	1.88	3.09	...	...	...	...	...
No. 21X16.	Ceiling Plate, Black	.15	.18	.23	.25	.31	.38	.50	.69	.76	.95	...	...	...
No. 21X17.	Floor Plate, Black	.08	.08	.12	.15	.20	.23	.35	.42	.50	.60	...	...	...
No. 21X18.	Nipples, Short, Black	.03	.05	.06	.08	.08	.14	.25	.31	.50	.54	...	...	...
No. 21X19.	Nipples, Short, Galv.	.05	.06	.08	.12	.14	.18	.38	.45	...	...	...	...	...
No. 21X20.	Nipples, Long, Black	.05	.06	.09	.12	.18	.36	.45	.65	.74	...	...	...	...
No. 21X21.	Nipples, Long, Galv.	.08	.09	.12	.20	.23	.30	.56	.72	...	...	...	...	...
No. 21X22.	Nipples, R. & L., Black	.15	.20	.29	.36	.42	.57	1.26	...	...	...	...	...	...
No. 21X23.	Elbows, Reducing	...	.14	.18	.25	.32	.45	.84	1.19	1.68	1.95	3.23	4.58	10.86
No. 21X24.	Elbows, 45-degree	.11	.15	.18	.27	.35	.46	.84	1.26	1.75	2.21	3.51	4.85	11.93
No. 21X25.	Tees, Reducing, Black	...	.20	.25	.38	.46	.66	1.17	1.75	2.45	2.79	4.91	6.45	15.80
No. 21X26.	Crosses, Reducing, Black	...	.35	.42	.65	.84	1.17	2.97	3.09	4.20	4.91	8.41	11.24	27.00
No. 21X27.	Reducers, Cast Iron	...	...	...	...	...	...	...	...	...	...	2.70	3.78	9.45

For Prices on Cast Iron Galvanized Fittings, double corresponding price in Black.

Malleable Iron Fittings

For Standard Wrought Iron Pipe are made of the best grade of malleable iron, great care being used in the selection of material and their manufacture; all fittings are inspected and tested before shipment, guaranteed water, air and gas tight. **Give figure, number and price when ordering.**

Sizes.		¼	⅜	½	¾	1	1¼	1½	2	2½	3	3½	4
No. 21X28.	Elbows, R. H., Black	.08	.09	.11	.12	.16	.29	.38	.60	1.02	1.77	2.28	3.15
No. 21X29.	Elbows, R. & L., Black	.15	.23	.12	.17	.25	.29	.45	.61	...	...	...	...
No. 21X30.	Elbows, R. H., Galv	.08	.12	.15	.16	.25	.48	.57	.90	1.59	2.70	...	...
No. 21X31.	Elbows, 45-Degree, R. H., Black	.05	.08	.11	.15	.20	.35	.48	.79	1.44	1.56	1.80	2.31
No. 21X32.	Elbows, 45-Degree, R. H., Galv.	.08	.12	.12	.21	.30	.50	.68	1.17	1.29	2.07	2.78	3.57
No. 21X33.	Elbows, Street, Black	.05	.08	.12	.16	.20	.30	.39	.69	...	...	...	...
No. 21X34.	Elbows, Street, Galv.	.06	.12	.15	.23	.30	.46	.61	1.07	...	...	...	...
No. 21X35.	Elbows, Side Opening, Black	...	.13	.13	.18	.30	.52	.69	1.16	...	...	...	...
No. 21X36.	Elbows, Side Opening, Galv.	...	.16	.18	.25	.45	.72	.99	1.61	...	...	...	...
No. 21X37.	Tees, Black	.06	.11	.13	.16	.20	.37	.45	.80	1.26	2.16	3.05	3.45
No. 21X38.	Tees, Galv.	.09	.13	.20	.24	.31	.59	.75	1.21	3.45	3.59	...	...
No. 21X39.	Crosses, Black	.08	.12	.18	.30	.39	.44	.54	.99	1.68	2.67	3.39	4.64
No. 21X40.	Crosses, Galv.	.11	.16	.24	.38	.57	.66	.79	1.53	2.58	4.13	5.22	7.33
No. 21X41.	Reducers, Black	.09	.12	.08	.12	.15	.25	.30	.42	.60	1.02	1.56	1.30
No. 21X42.	Reducers, Galv.	.11	.15	.11	.15	.24	.27	.30	.65	.91	1.56	2.40	2.79
No. 21X43.	Caps, Black	.03	.05	.08	.11	.15	.16	.23	.36	.80	.81	1.25	1.41
No. 21X44.	Caps, Galv.	.05	.06	.09	.15	.20	.27	.33	.56	.91	1.26	1.65	2.16
No. 21X45.	Return Bends, Close, Black	...	...	...	.24	.36	.39	.61	.86	1.88	...	...	...
No. 21X46.	Return Bends, Close, Galv.	...	...	...	.39	.57	.60	.96	1.44	1.93	...	...	...
No. 21X47.	Return Bends, Open, Black	...	...	...	.27	.45	.50	.69	1.16	2.24	3.26	...	...
No. 21X48.	Return Bends, Open, Galv.	...	...	...	.39	.57	.67	1.19	1.73	3.15	4.00	...	...
No. 21X49.	Locknuts, Black	...	...	...	.06	.08	.09	.11	.12	.25	.37	...	...
No. 21X50.	Locknuts, Galv.	...	...	...	.08	.09	.14	.15	.16	.36	.48	...	...
No. 21X51.	Unions, Black	.17	.19	.20	.25	.31	.45	.57	.72	1.49	1.49	...	...
No. 21X52.	Unions, Galv.	.25	.30	.31	.39	.50	.68	.89	1.11	2.18	2.93	...	...

ALL PRICES ON THIS PAGE SUBJECT TO CHANGE

Cast Iron Black Drainage Fittings Threaded for Wrought Iron Pipe

These fittings have an interior shoulder to which the pipe screws up flush, thus giving an unobstructed passage, preventing pipe from becoming choked up by any solid matter.

Drainage Basin Tee

No. 21X124.
Size, 1½ inches. Price.....81c
Size, 2 inches. Price.....93c

Drainage Street Elbow

No. 21X125. Cast Iron.
Size, 1½ inches. Price.....48c

Wrought Iron Long Screw

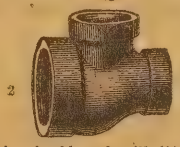
No. 21X126.
with Coupling and Lockout, Faced.
Galvanized
Size, 1½ in. x 5½ in. long. Price.$1.08
Size, 2 in. x 6 in. long. Price..$1.45

How to Order Reducing Tees and Crosses

Reducing Tees

1st. Always give end or run openings. Then side openings.

Example

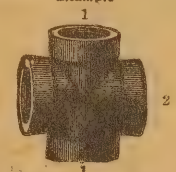


Order should read: "2x1½x1¼."

Reducing Crosses

Always mention all openings. Reading straight across, then up and down.

Example



Order should read: "2x2x1x1."

CAST IRON FLANGE

When ordering cast iron flanges, be sure to mention size of pipe and diameter of flange. We can furnish in three ways: "Not Faced or Drilled," "Faced" and "Faced and Drilled." When ordering be sure to give size, figure number and price. Bolts are extra.

No. 21X200. 1st. Cast Iron Flange. Not Faced or Drilled.
No. 21X201. 2nd. Cast Iron Flange. Faced.
No. 21X202. 3rd. Cast Iron Flange. Faced and Drilled.

Inside Pipe, Inch.	Outside Flange, Inch.	"Not Faced or Drilled."	"Faced."	"Faced and Drilled."	Inside Pipe, Inch.	Outside Flange, Inch.	"Not Faced or Drilled."	"Faced."	"Faced and Drilled."
2	6	$0.63	$1.10	$1.53	3½	9	$1.75	....	....
2	7	95	....	....	4	9	1.75	$2.05	$2.75
2½	7	95	1.30	1.66	4	10	2.28	....	....
3	7½	1.10	1.48	1.80	5	10	2.28	2.43	3.10
3½	8½	1.53	1.83	2.40	5	11	2.65	....	....
					6	11	2.65	3.05	3.80

Cast Iron Black Drainage Fittings. Threaded for Wrought Iron Pipe

NOTICE.—The sizes given for fittings refer to the size of the pipe on which fittings are to be used. Carefully measure the inside of the pipe. NOT the coupling, and order by this size.

90 Degree Drainage Elbow

No. 21X121.
Size, 1½ inches. Price.....45c
Size, 2 inches. Price.....66c

45 Degree Drainage Elbow

No. 21X122.
Size 1½ inches. Price.....45c
Size 2 inches. Price.....66c

45 Degree Y Drainage

No. 21X127.
Size, 1½ inches. Price.....75c
Size, 2 inches. Price.....$1.12

Branch Tees and Manifolds

All openings in branch tees for circulation are tapped right hand. Branch tees for box coils are always tapped left hand in branches and right hand in back opening. Back opening No. 2 Branch Tees are always tapped same size as branch unless otherwise specified. In ordering, please give figure number, size of branch, No. of Branch, and size of run. In No. 2 and 3 Manifold the side outlet and back openings are charged as additional front outlet, that is, the price of a No. 2 or No. 3, 6 branch manifold would be charged as a 7 branch manifold.

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FOR CIRCULATION

Fig. 1

FOR CIRCULATION

Fig. 2

FOR BOX COILS

Fig. 3

1 in. Branch Tees 1 in. or 1¼ in. run are 1¾ in. inside diameter. 1 in. Branch Tees 1½ in. or 2 in. run are 2¼ in. inside diameter. 1¼ in. Branch Tees are all 2½ in. inside diameter.

1½ in. Branch Tees are all 2¾ in. inside diameter. 2 in. Branch Tees are all 3½ in. inside diameter. Always order Branch Tees by size and figure number.

No. of Branches	1 in. Br. Tees 2½ in. Center to Center			1¼ in. Br. Tees 3 in. Center to Center			1½ in. Br. Tees 3½ in. Center to Center			2 in. Br. Tees 4½ in. Center to Center		
	1 in. or 1¼ in. Run	1½ in. Run	2 in. Run	1¼ in. or 1½ in. Run	2 in. Run	2½ in. Run	1½ in. or 2 in. Run	2½ in. Run	3 in. Run	2 in. or 2½ in. Run	3 in. Run	3½ in. Run
2	$1.00	$1.15	$1.30	$1.90	$2.40	$2.65	$3.00	$3.85	$4.20	$ 5.75	$ 6.35	$ 6.85
3	1.15	1.35	1.50	2.40	2.85	3.15	3.70	4.55	5.10	7.00	7.70	8.55
4	1.30	1.60	1.80	2.90	3.55	3.90	4.40	5.50	6.05	8.40	9.35	10.15
5	1.45	1.85	2.15	3.30	3.95	4.40	5.15	6.35	6.85	9.70	10.75	11.80
6	1.75	2.10	2.30	3.90	4.20	4.65	5.75	7.15	8.00	11.60	12.95	14.30
7	2.20	2.45	2.70	4.50	4.95	5.50	6.45	7.70	8.55	12.85	14.00	15.40
8	2.45	2.75	3.05	5.25	6.15	6.75	7.15	9.05	9.90	13.50	14.85	16.50
9	2.90	3.40	3.80	5.85	6.85	7.55	8.40	10.20	11.00	14.85	16.50	18.15
10		4.00	4.40	6.25	7.25	8.00	8.80	10.70	11.80			
11		4.80	5.25	6.50	7.65	8.45	9.35	11.55	12.65			
12		5.10	5.60									

When a manifold is required with a larger body than quoted under the above list—or when a large number of coils is required for drying purposes—we are prepared to furnish pipe headers—made from the following sizes of pipe, either new or S. H.: 3 in.—4 in.—5 in.—6 in. We can furnish any quantity of these pipe headers tapped to meet the requirements of any plans you may send us.

Drilling and Tapping Pipe Headers, Either 3 in. or 4 in. Pipe

Size of holes threaded for standard pipe	½	¾	1
Price per hole in cents, drilled and threaded	10	10	14

Drilling and Tapping Pipe Headers, 5 in.—6 in. Pipe

Size of hole threaded for standard pipe	½	¾	1	1¼	1½
Price per hole in cents, drilled and threaded	12	12	17	20	27

BE SURE TO GIVE CENTER MEASUREMENTS FOR TAPPING AND DRILLING HEADER

SECTIONAL SPRING TUBE EXPANDER

Prosser Type

4-X-9002

The Prosser Type Sectional Spring Tube Expanders. A heavy, substantial tool, same style as used in boiler shops. Made of the highest grade tool steel for ⅜ inch boiler. In ordering, be sure and give outside diameter of tubes.

Size, in.	1¾	2	2¼	2½	3
Price, each	$5.70	$6.20	$6.70	$7.75	$11.40

EXPANSION FLUE BRUSHES

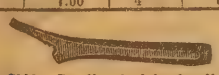
4-X-9009. **Made of malleable iron and tempered steel.** Sizes given are for flues outside diameter.

Size Inches	Price Each	Size Inches	Price Each
1½	$1.20	2½	$1.50
1¾	1.25	3	1.80
2	1.30	3½	2.10
2¼	1.35	4	2.40

ENGINEERS' FAVORITE FLUE SCRAPER

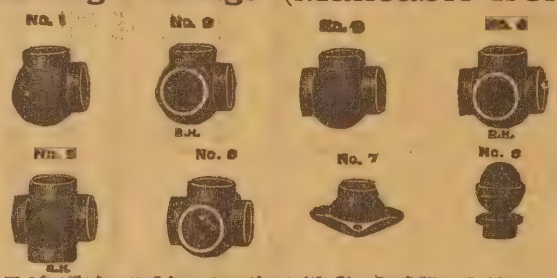
4-X-9007. **Has adjustable screw and good cutting edges that enables the operator to clean flues thoroughly.** Sizes given are for tubes outside diameter.

Size Inches	Price Each	Size Inches	Price Each
1½	$0.67	2½	$1.15
1¾	.78	3	1.35
2	.90	3½	1.55
2¼	1.00	4	1.80



4-X-9000. **Beading tool for beading end of boiler tubes.** Price, each.....90c

Railing Fittings (Malleable Iron)



21-X-96. To be used in connection with Standard Pipe for the purpose of constructing fences and enclosures of all kinds.

PLEASE READ WITH CARE—To construct a railing, two pipes high, the upper outlet of all Fittings in the lower rail should be tapped with left hand thread. As fittings used for this purpose do not need to be steam or water tight a sufficiently clean thread to screw up well and make a good job can be made by running a left hand tap into any outlet tapped right hand. Be sure to mention when ordering Right or Left Hand.

Order from figure number above—note illustration.

Sizes, inches	½	¾	1	1¼	1½	2
No. 1. Elbow	$0.08	$0.11	$0.17	$0.26	$0.36	$0.65
No. 2. Elbow Side Outlet	.09	.12	.15	.27	.33	.56
No. 3. Tee	.09	.11	.16	.25	.35	.54
No. 4. Tee S. Outlet	.10	.12	.15	.26	.36	.60
No. 5. Cross	.09	.12	.15	.26	.35	.62
No. 6. Cross S. Outlet	.10	.12	.18	.26	.36	.62
No. 7. Floor Flange	.08	.12	.15	.29	.42	.72
No. 8. Acorn Ornaments	.07	.12	.15	.26	.35	.62

DROP FITTINGS IN BLACK AND GALVANIZED

	Long Drop Elbow		Short Drop Blk.	Short Drop Gal.		In Drop Tees Blk.	In Drop Tees Gal.
⅛	Blk.	10c	⅛	6c	8c	⅛	10c 12c
⅛	Gal.	12c	¼	10c	12c	¼	15c 18c
			¾	12c	15c	¾	20c 30c

CAST IRON FLOOR FLANGES

Drilled for Screws

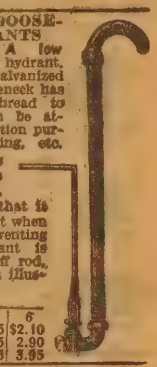
21-X-210

Pipe size, in.	⅜	½	¾	1	1¼	1½	2
Dia. Flang, in.	3	3½	3½	4	4	4½	5½
Price, each	15c	22c	22c	24c	24c	33c	52c

Cast Iron Hook Plates

No.	For Pipe Spread of Inch Hooks	NUMBER OF HOOKS 1	2	3	4	5	6
21-X-79	1	2½	10c	19c	25c	28c	35c	41c
21-X-80	1¼	3	11c	23c	29c	35c	45c	57c
21-X-81	1½	3½	16c	30c	48c	63c	79c	99c
21-X-82	2	4½	24c	47c	71c	98c	1.25	1.48

GALVANIZED GOOSE-NECK HYDRANTS

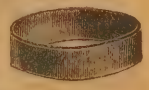


No. 21-X-305. A low priced, efficient hydrant, which is made in galvanized pipe only. The gooseneck has a standard hose thread to which the hose can be attached for fire protection purposes, lawn sprinkling, etc.

The valve, which is placed below the frost line, is brass, and is so arranged that it will drain the hydrant when shut off, thus preventing freezing. The hydrant is provided with shut-off rod, complete as shown in illustration.

Length, ft.	4	5	6
Size ¾	$2.00	$1.95	$2.10
1	2.55	2.75	2.90
1¼	3.57	3.85	3.95

BOILER TUBE FERRULES



21-X-9527. Seamless Copper Boiler Tube Ferrules. Used on ends of boiler tubes to make a perfect fit and a tight job. Sizes are for tubes outside diameter.

Sizes	Width, Ins.	Thickness of Copper, Ins.	Price Each
1¾	½	1-32	$0.06
2	½	1-32	.07
2¼	⅝	1-32	.09
2½	⅝	1-32	.10
3	¾	1-32	.15
3½	¾	1-32	.17
4	⅞	1-32	.23

ROLLER TUBE EXPANDERS

Dudgeon Pattern

4-X-9003. **This expander has a solid body, thus avoiding constant breaking of cap screws.** Made of the best material and finely finished. Sizes given are for outside diameter tubes. If your tube measures 2 inches outside diameter you would then require a 2 inch Expander.

Size Inches	Price Each	Size Inches	Price Each
1¼	$4.70	2½	$6.50
1½	4.75	3	8.35
1¾	4.80	3½	10.70
2	4.85	4	14.00
2¼	5.55		

Pipe of all kinds—always at big savings!

Galvanized Feed Troughs
Painted Black

NON-TIP FEED TROUGHS
FOR HOGS, SHEEP AND CATTLE

HERE are the strongest and best feed troughs for all farm feeding. They are made of heavy galvanized iron (about 10 gauge)—no rough edges or sharp corners to harm the stock. The flared legs make tipping impossible. They will not rust, leak or cave in. Made with rounded bottoms easily cleaned—thoroughly sanitary. Cross bars and legs are made of heavy bar iron, securely riveted. Discard your disease breeding, unsanitary wood troughs and replace them with these modern steel troughs now. Before shipment we paint them with a good quality of black paint which adds to their appearance and durability.

Buy Now At These Low Sale Prices

$1.95

PRICES

Catalogue Number	Width, inches	Depth, inches	Length, feet	Weight, lbs.	Capacity, gallons	Price, each	Lots of 3, each	Lots of 6, each	Lots of 12, each
14-X 512	12	6	5	40	15	$1.95	$1.85	$1.75	$1.65
14-X 812	12	6	8	65	24	2.95	2.85	2.75	2.65
14-X1012	12	6	10	80	30	3.95	3.85	3.75	3.65

Ready Now for Quick Shipment

FULL WEIGHT

STEEL TANKS

GALVANIZED STEEL

Made of Full Weight U. S. STANDARD Gauge Galvanized Steel

LOW PRICES AND GUARANTEE. We quote the lowest prices ever made.

QUALITY. We use only the best quality of galvanized steel sheets and guarantee full weight U. S. standard gauge No. 20.

HOW MADE. All joints are lock seamed. This style of joint is considered the best possible construction, as there are four thicknesses of metal tightly joined.

COVERS. We can furnish flat covers at 26c per sq. ft. for any tank shown and the size of cover is obtained by multiplying the square of the tank. As an example, on a round tank 4 ft. in diameter a square would be 4x4 or 16 sq. ft. On round end tanks the square is figured by the length and width at longest and widest point.

CAPACITY. The capacity of tanks as shown in barrels is based on 31½ gal. to the bbl. In figuring the round end tanks no allowance has been made for the round corners, so these tanks will not hold quite as rated.

KNOCKED DOWN TANKS. When tanks are shipped knocked down all holes are punched, every part is fitted together at the factory and sufficient solder and rivets are sent to put the tank together.

PIPE CONNECTION. We do not cut pipe connection in steel tanks, because it is a difficult matter for anyone to tell before receiving their tanks just where it is best to cut the hole. You can easily cut the hole by using a cold chisel and cut against a block of hard wood.

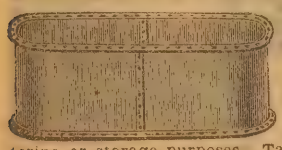
Our galvanized pipe connections consist of one close nipple, two leather washers, two lock nuts and one pipe cap, so you can close hole when you wish. Shipped from factory with tanks.

Prices as follows:

No. 4-X-1600. Pipe Connections.

Size	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
Each	$0.35	$0.45	$0.55	$0.68	$0.90

ROUND END GALVANIZED STEEL TANKS



Made of No. 20 gauge galvanized steel guaranteed. Always shipped set up unless otherwise ordered. Sufficiently heavy for ordinary stock watering or storage purposes. Tanks made of No. 18 gauge steel, additional charge of 5%.

BRACING. On tanks 6, 8 and 10 ft. long we furnish one angle brace across the top and two on each side. On larger tanks there are two braces across the top and three on each side.

Prices are F. O. B. Factory, Northern Indiana.

No.	Wdth. Ft.	Ht. Ft.	Lgth. Ft.	Cap'y Bbls.	Wt. Lbs.	Price Each.
4-X-1831	2	1	4	1½	50	$5.75
4-X-1832	2	1	6	2½	60	7.90
4-X-1833	2	1	8	3½	85	9.97
4-X-1834	2	2	4	3¾	65	7.35
4-X-1835	2	2	6	5¾	90	10.75
4-X-1836	2	2	8	7½	120	12.85
4-X-1837	2	2½	8	9½	137	14.70
4-X-1838	2½	2	8	9½	135	13.65
4-X-1839	2½	2½	8	12	150	15.75
4-X-1840	3	2	8	11½	145	14.69
4-X-1841	3	2½	8	14	160	16.80
4-X-1842	4	2	8	15	155	18.90
4-X-1843	4	2½	8	17	174	21.00
4-X-1844	4	3	8	23	195	23.10
4-X-1845	3	2	10	14	165	18.35
4-X-1846	3	2½	10	18	192	20.98
4-X-1847	3	3	10	21	215	24.95
4-X-1848	4	2	10	19	205	22.60
4-X-1849	4	2½	10	24	225	25.20
4-X-1850	4	3	10	29	245	29.90
4-X-1851	4	2	16	30	315	35.70
4-X-1852	4	2½	16	38	365	39.85
4-X-1853	5	2	16	38	380	42.00
4-X-1854	5	2½	16	47	400	47.25

ROUND GALVANIZED STORAGE TANKS

These tanks are shipped knocked down, properly marked to facilitate erection. Every tank is set up at our factory and inspected before shipment. We furnish sufficient solder and rivets. Full instructions also accompany each shipment.

We recommend No. 18 gauge for tanks of 40 bbl. cap. and larger, No. 16 gauge for 100 bbl. tanks and larger.

Prices are F. O. B. factory, Northern Indiana.

	Dia. Ft.	Ht. Ft.	Cap. Lbs.	Wt. 20 G.	Price 18 G.	Price 16 G.
4-X-1816	6	6	40	340	$36.75	.....
4-X-1817	6	8	54	430	45.15	.....
4-X-1818	8	5	60	475	49.90	.....
4-X-1819	8	6	72	530	55.00	.....
4-X-1820	8	8	95	640	.....	$85.30
4-X-1821	8	10	120	750	.....	$122.00
4-X-1822	10	8	150	875	.....	142.00
4-X-1823	10	10	180	970	.....	159.50

AUTOMATIC POULTRY FOUNTAIN

This fountain is closed tight except a small space near bottom where fowls have access to water. It will not burst by freezing. It retains water in sanitary condition. No danger of chicks drowning. Can be set on a stove.

No. 4-X-1859. One gallon size. Price... **69c**

No. 4-X-1860. Two gallon size. Price.....77c

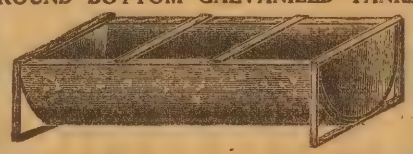
SQUARE END GALVANIZED TANKS

Made of No. 20 gauge galvanized steel guaranteed. Sufficiently heavy for ordinary stock watering or storage purposes. These tanks made of No. 18 gauge steel at an additional charge of 25%.

Prices are F. O. B. factory, Northern Indiana.

No.	Wdth. Ft.	Ht. Ft.	Lgth. Ft.	Cap'y Bbls.	Wt. Lbs.	Price Each.
4-X-1863	2	2	4	4	80	$8.90
4-X-1864	2	2	6	6	105	11.75
4-X-1865	2	2	8	7½	130	16.80
4-X-1866	2	2½	8	9½	135	18.90
4-X-1867	2½	2	8	9½	150	18.50
4-X-1868	3	2	8	11½	160	19.65
4-X-1869	2½	2½	8	12	170	20.45
4-X-1870	3	2	10	14	195	23.10
4-X-1873	3	2½	10	18	215	25.72
4-X-1874	4	2	10	19	225	27.00

ROUND BOTTOM GALVANIZED TANKS



No Cross Bars on Tanks less than 10 feet long. Made of 20 gauge, galvanized steel, guaranteed. Furnished with steel frame or truss at each end so it can be set on the ground. Does not have to be bolted to timbers. One cross bar on tanks 10 feet long or over. Prices are F. O. B. cars factory, Northern Indiana.

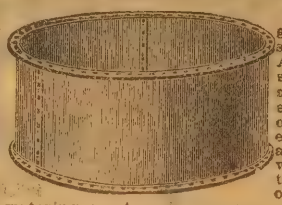
No.	Wdth. Ft.	Dpth. Ft.	Lgth. Ft.	Cap'y Bbls.	Wt. Lbs.	Price Each.
4-X-2964	1½	8	10	2	60	$5.25
4-X-2967	2	12	8	4	90	8.40
4-X-2968	1½	14	8	4	90	8.40
4-X-2966	1½	14	10	5	100	9.45
4-X-2965	2	12	10	5	100	9.45
4-X-2963	2	20	8	6	130	12.60
4-X-2962	2½	18	8	6	130	12.60
4-X-2961	2	20	10	8	150	14.70
4-X-2960	2½	18	10	8	130	14.70
4-X-2972	3	24	8	10	165	16.80
4-X-2971	3½	22	8	10	165	16.80
4-X-2970	3	24	10	13	175	17.85
4-X-2969	3½	22	10	13	175	17.85
4-X-2974	4	24	8	16	185	16.80

SHEEP AND HOG DIPPING TANK

Prevent contagious diseases; for dipping Sheep and Hogs. Placed in ground with top on level with surface. Animals are driven in and out of tank. Made of No. 20 gauge galvanized steel. If made of No. 18 gauge, add 25% to price. Always shipped set up. Our design is correct and best made. If you wish special style, send sketch and dimensions for prices. Prices F. O. B. factory, N. Ind.

No.	Ht.	Lth. Top.	Lth. Btm.	Wth. Top.	Wt. Btm.	Wt. Lbs.	Price Each.
4-X-1895	36"	5'	3'	24"	12"	115	$14.15
4-X-1896	36"	6'	4'	30"	18"	128	15.75
4-X-1897	42"	10'	5'	30"	12"	240	26.25
4-X-1898	48"	10'	5'	30"	12"	255	29.90

ROUND GALVANIZED STEEL TANKS



Made of No. 20 gauge galvanized steel, guaranteed. Always shipped set up unless otherwise ordered. This gauge of steel is sufficiently heavy in any of the sizes which we offer these tanks for ordinary stock watering or storage purposes. We can furnish these tanks made of No. 18 gauge steel at 25% higher prices. Prices are F. O. B. cars, factory, Indiana.

No.	Diam. Ft.	Hght. Ft.	Cap'y Bbls.	Wt. Lbs.	Price Each.
4-X-1801	3	2	3½	70	$8.40
4-X-1802	4	2	6	90	9.96
4-X-1803	4	2½	7	100	11.30
4-X-1804	4	3	9	109	13.32
4-X-1805	4	4	12	135	16.76
4-X-1806	5	2	9½	115	13.60
4-X-1807	5	2½	12	129	15.22
4-X-1808	5	3	14	140	16.25
4-X-1809	5	4	19	160	22.00
4-X-1810	6	2	14	150	16.78
4-X-1811	6	2½	17	170	18 33
4-X-1812	6	3	20	190	20.95
4-X-1813	6	4	27	230	26.17
4-X-1814	6	5	34	260	31.45

PREMIER OIL TANKS

These tanks are made of No. 26 gauge galvanized iron, body and bottom, with wood bottom under metal, tin hood, portable and steady stream pump which can be taken out of the tank and used for pumping kerosene from barrel into tank. All tanks are neatly painted and lettered.

No.	Cap. Gal.	Wght. Crated.	Price Each.
4-X-1970.	30	35	$7.34
4-X-1971.	60	50	8.98
4-X-1972.	110	65	12.39

GASOLINE AND OIL TANKS

Made of No. 20 gauge galvanized steel, is very strong and durable and will stand much hard usage. These tanks are fitted with a screw cap opening in top to fill by and faucet in side near bottom to draw off contents. Prices given below are F. O. B. cars factory, Northern Indiana.

No.	Inside Diam. Inches.	Height. Inches.	Capacity Gallons.	Price Each.
4-X-1960	18	30	32	$6.15
4-X-1961	24	30	58	7.00
4-X-1962	24	36	70	8.70
4-X-1963	34	30	117	7.40
4-X-1964	34	36	140	12.30
4-X-1965	34	42	165	14.85
4-X-1966	34	48	185	16.25
4-X-1967	40	42	225	18.50
4-X-1968	40	48	260	20.15

Tanks, Feeders, Cookers, Tank Heaters

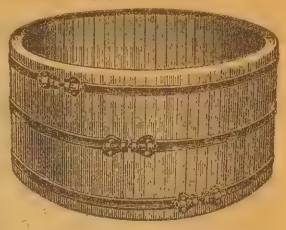
Farmers Stock Feed Cookers

For cooking feed, heating water, boiling sugar, rendering lard, making soap, scalding. Casing or jacket is made of strong cold-rolled steel, supported at bottom with a heavy wrought iron band, shrunk on and not riveted. The jacket is one continuous sheet of steel. The smoke is thrown around the kettle before it passes into the smoke pipe, bringing the outside of the kettle in direct contact with the fire, enables you to boil fifty gallons of feed from 20 to 30 minutes. Large fire door 12x15 inches. Burns wood from 28 to 36 inches long. Prices quoted are for wood burning cookers. Shipped from warehouses in Southern Michigan or Central Iowa.

Order Number	Actual Cap.	Diam. Inside Flange	Depth Kettle	Weight Lbs.	Less Cover	Cover Extra
4-X-1991	15	20 in.	13½	125	$ 9.55	$1.05
4-X-1992	20	23 in.	15	145	11.55	1.05
4-X-1993	30	27 in.	16	185	14.50	1.20
4-X-1994	45	29 in.	18½	225	18.20	1.20
4-X-1995	55	32 in.	21	265	20.00	1.35
4-X-1996	65	34 in.	21	325	22.00	1.35
4-X-1997	75	36 in.	22	350	25.70	1.35

COAL GRATES FOR FARMERS' STOCK FEED COOKERS
4-X-1999. Price, each $4.95

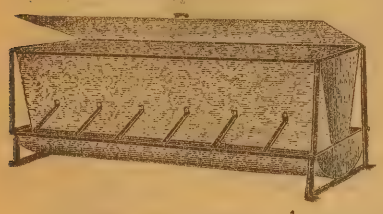
Washington Fir Stock and Storage Tanks



Made of strictly clear Washington Fir, with Steel Hoops and Lugs. Size: 1½ in. stock is dressed to about 1⅜ in. thick and 2 in. stock is about 1⅞ in. thick. On tanks 8 feet or larger in diameter we recommend that they be made of the 2 in. stock. We ship tanks Knock Down direct from warehouse located in Wisconsin.

Order Number	Diam. Feet	Length of Staves, Feet	No. of Hoops	Capacity Gallons	Weight 1½" Lbs.	Price 1½"	Weight 2" Lbs.	Price 2"
4-X-2001	4	2	2	138	200	$10.95	260	$15.95
4-X-2003	4	4	3	277	300	20.00	390	24.20
4-X-2005	5	2	2	221	225	14.20	263	21.65
4-X-2007	5	5	4	575	550	32.50	715	39.00
4-X-2009	6	2	2	324	300	18.00	390	26.45
4-X-2013	7	2	2	446	400	22.80	520	32.00
4-X-2017	8	2	2	588	455	29.00	591	37.40
4-X-2021	10	2	2	931	600	39.48	780	50.00
4-X-2025	6	6	4	1100	695	44.30	1903	53.20
4-X-2027	6	8	5	1490	...	....	1170	74.00
4-X-2029	8	6	4	1950	...	....	1267	76.00
4-X-2031	8	8	5	2700	...	....	1495	96.70
4-X-2033	10	10	7	5400	...	....	1787	155.50

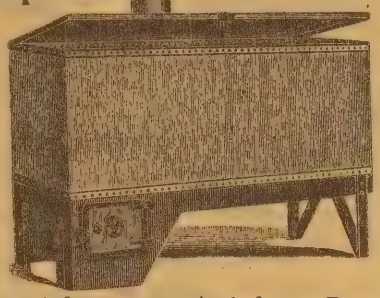
GALVANIZED Hog Feeder



An excellent hog feeder, made of No. 20 gauge galvanized steel, reinforced with heavy angle iron. The construction and design prevents feed waste. Hogs cannot crowd along the trough. Dry feed of any kind will flow down through the container into the trough as fast as it can be eaten. Put in one of these troughs and you will quickly see the advantage of using them only. The feed saved and the health of your hogs will more than pay for your troughs in a surprisingly short time.

4-X-58—4 ft. long, cap. 11 bus., each .. $16.00
4-X-59—6 ft. long, cap. 16 bus., each .. 20.00
4-X-60—8 ft. long, cap. 21 bus., each .. 24.00

Improved Feed Cooker



No steam to keep up, no water to freeze. Furnace and fire flue under the boiler is heavy sheet steel. The fire box has a heavy cast iron grate and back wall. The fuel door and opening in ash pit are cast iron. The furnace is made of 14 gauge steel. The boiler or pan is No. 18 gauge steel. Cover is made of No. 20 gauge steel hinged to one side of the boiler and flanged downward, making it steam-retaining. The grate is made especially for coal, wood or cobs. Can be used for boiling sorghum and water. Prices, F. O. B. warehouse in Indiana.

No.	Length, In.	Width, In.	Depth, In.	Weight, Lbs.	Capac., Gal.	Price.
4-X-1974	4	24	12	175	60	$19.00
4-X-1975	4	24	18	200	90	20.25
4-X-1976	5	24	18	220	115	22.50
4-X-1977	6	28	18	290	160	28.00

Tank Heater

(Self-Sinking)

$8.50

Made of cast iron in one piece. 12 in. wide, 2 ft. high. Heater will sink itself and remain in place. Needs no rods to hold it down. Can be used in galvanized cement, wood or any other kind of tank. Equipped with grates and ash tray, 2 ft. of smoke stack with damper and hood. Burns cobs, wood or coal. Ohio shipment.

4-X-1985. Price $8.50

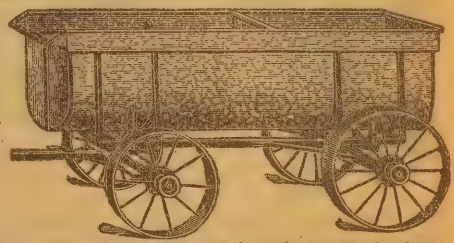
Galvanized Steel Wagon Tanks

$17.90

For portable engine, gathering maple sap and hauling liquids, manure, etc. The top or cover is made of galv. steel, the tanks are made of No. 20 gauge galv. steel. Sides and bottoms flanged together, riveted between two strips of 1x⅛ in. metal, the rivets placed only 3 in. apart. The top is fastened to tank by flanging sides and top together and riveted or bolted between 1x3/16 in. metal. The center of top there is a 14 in. round manhole with 3 in. flange extending upward with tight fitting cover. Tank is strongly braced; sizes longer than 6 ft. have one bulkhead in center of tank riveted or bolted to the sides, serves to break force of water and supporting the tank against outward pressure. One inch pipe or hose connection placed close to bottom in rear. Tank is made of 20 gauge galv. steel; can make them up in 18 gauge steel at an additional cost of 20 per cent to the prices below quoted. Prices F. O. B. cars N. Ind.

No.	Wh.	Ht.	Lh.	Cap.	Wght.	Price.
4-X-1979	2 ft.	2 ft.	6 ft.	5½ bbls.	120 lbs.	$17.90
4-X-1980	2 ft.	2 ft.	8 ft.	7½ bbls.	155 lbs.	18.90
4-X-1981	2 ft.	2½ ft.	8 ft.	9½ bbls.	168 lbs.	22.25
4-X-1982	3 ft.	2 ft.	8 ft.	12 bbls.	191 lbs.	24.25
4-X-1983	3 ft.	2 ft.	10 ft.	14 bbls.	236 lbs.	28.35

Steel Thresher Tanks



Made of 20 gauge galv. steel, but can make them up in 18 gauge steel at an additional cost of 20 per cent to prices given below. Made with truss support to support contents on a farm wagon bolster. The seams are all soldered inside of tank. Truss support is made of heavy angle iron and in a manner which places the strength at points where most needed. Back of the partition is a 14 inch round manhole with a flange 5 inches high and a tight fitting cover. Across the top of the tank at rear side of manhole is a plank bolted at each end to attach tank pump for filling tank. In the bottom between the front and rear truss we place a 1-inch connection for feed pipe or hose to the engine. The slush board is bolted or riveted to a fastening provided inside of the tank to the side walls, serving to support tank against outward pressure. Our bulkheads are stationary. These tanks will fit any old farm wagon bolster, narrow or wide track. For wide track, or 42 inch bolster we bolt a 2x4 piece of wood on each side of truss, front and rear, which makes a close fit.

No.	Lh., Ft.	Wt., In.	Ht., In.	Cap., Bbls.	Wght., Lbs.	Price
4-X-1987	8	38	24	9½	350	$37.50
4-X-1988	10	38	24	12	375	43.00
4-X-1989	10	38	28	15	400	47.00

THE WIND IS THE ONLY FREE POWER. WHY DON'T YOU USE IT? NO EXPENSE; NO BOTHER

WIND MILLS

AT OUR LOW PRICES FOR MILLS AND TOWERS IT WILL PAY YOU TO USE WIND POWER TOO

PREMIER WINDMILLS
BALL-BEARING BACK GEARED

The cut in the center shows you a Premier back geared mill as it is shipped complete. The slats or fans are extra heavy, hard spring sheet steel. The arms and rims are made of high grade round edge tire steel. The rudder is sheet steel bound with ¼-inch round iron. Absolutely cannot bend or break. All parts of this mill are **thoroughly coated by the hot process with a heavy coating of Virgin ore spelter.** There is no chance for rust around the bolt holes or the joints. Every casting is made from the highest grade new iron. The shafts are cold rolled steel. All bearings not referred to as being ball bearings are babbitted with the best grade anti-friction babbitt. The automatic friction brake is positive and simple. The stroke is adjustable. There are no fragile springs or weak parts. This wind mill is guaranteed by us to be the strongest and highest grade wind mill obtainable at any price.

Price on Galvanized Mills and Towers Subject to Change.

Adapted for Heavy Work

Guaranteed Easy Running Noiseless Powerful

STRONGEST AND HIGHEST GRADE WINDMILL MANUFACTURED

THEY ARE STRONGER THAN THE WIND. READ WHY:

All Premier mills are complete with bed plate, truing spider and reefing gear to put on tower to disconnected gear, also a wood pump rod and pull out wire. They are equipped with chilled steel ball bearings on the main shaft between the main casting, the wheel, and bed plate. For this reason they are the lightest running mills made. A slight breeze will start them and a heavy gale will not make them rattle or noisy. These back geared mills have a small and large cog gear so that they are extra well adapted for heavy work such as pumping water from deep wells or pumping to a tank in a tower.

Lot 4-X-1701. 6-ft. back geared galvanized steel mill. Weight 290 lbs. Price **$32.00**

Lot 4-X-1703. 8-ft. back geared galvanized steel mill. Weight 425 lbs. Price **$43.25**

Lot 4-X-1705. 10-ft. back geared galvanized steel mill. Weight 525 lbs. Price **$62.50**

Lot 4-X-1707. 12-ft. back geared galvanized steel mill. Weight 890 lbs. Price **$97.50**

Shipped from Factory Near Chicago

DIRECT STROKE WOOD MILL

The direct stroke windmill is furnished with a side rudder as in the illustration. Aside from being lighter and made of wood it embodies all the principles of light running, noiseless windmills.

The slats in both the mill and rudder are yellow poplar. Wheel arms are tough second growth ash and rims are high grade bending oak. All of these parts have two coats of white lead except the arms, which are blue. Pitmans have babbitted bearings throughout. It is very simple in construction and strongly built. The bearings on the main shaft are adjustable. These mills are equipped with governor weight and are self-governing. In ordering, state the kind of tower to be used, whether for 3 or 4-post, steel or wood.

Lot 4-X-1781. 8-ft. direct stroke, wood mill. Weight, 380 pounds. Price **$40.25**

Lot 4-X-1783. 10-ft. direct stroke, wood mill. Weight, 485 pounds. Price **$48.95**

Lot 4-X-1785. 12-ft. direct stroke, wood mill. Weight, 725 pounds. Price **$67.70**

PREMIER DIRECT STROKE GALVANIZED STEEL PUMPING MILL

$41.00

THIS IS POSITIVELY the simplest in construction and best in working principles of any mill made. The connection is direct and no lost motion can occur. **EVERY REVOLUTION** of the wheel makes a stroke of the pump, which is very desirable where small cylinders are used and a good supply of water is desired. **THEY PUMP RAPIDLY,** are easy to set up, have few parts and do not get out of repair. All are ball bearing at both the thrust and bed plate. Wrist pins made of steel and have lock nuts to prevent them working out. Pitmans have removable babbitt bearings in each end. For a complete description of the wheel, wheel arms, rudder and rudder stem, read description under back geared mill. The only difference being in the curvature of the fans. Back geared wheels run faster than direct stroke, and cannot be used on direct stroke mills.

All Premier Mills Are Self Regulating. All bolts on the steel mills are galvanized and double nutted; the second nut acting as a lock-nut to prevent the other from working off. For simplicity and durability, try our Direct Stroke Mill. Always state what kind of a tower you will use.

4-X-1777. 8-ft. Direct Stroke Galv. Steel Mill. Wt., 405 lbs. Price **$41.00**

4-X-1774. 10-ft. Direct Stroke Galv. Steel Mill Wt., 520 lbs. Price.... **$52.40**

4-X-1781. 12-ft. Direct Stroke Galv. Steel Mill. Wt., 855 lbs. Price.... **$84.00**

The above price does **NOT** include a side rudder.

PREMIER WINDMILL TOWER

Our Premier galvanized windmill towers are so well known throughout the length and breadth of this country that they need no introduction. Read the remarkable description of these exceptional bargain priced towers.

THE ANGLE STEEL CORNER POSTS are exceptionally heavy long sections. They are properly sized to suit length of the tower. They are bolted at the bottom to heavy cast-iron anchor plates which rest on the ground or are made to set under the surface if you wish.

ANGLE STEEL BANDS. Angle steel bands which brace the tower at even distances are so graded in weight and thickness that the tower gets the maximum strength and is not top heavy.

THE BRACE RODS are ROUND IRON, not twisted wire and are graded proportionately in the different sized towers. They are strengthened by the use of a bracer rod button or clamp where each set of rods cross.

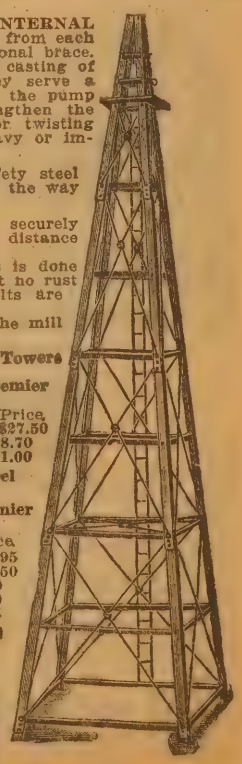
THE PUMP ROD GUIDE AND INTERNAL BRACE. There are 4 rods coming from each corner to the center at each sectional brace. The pump rod works through the casting of the intersecting rod guides. They serve a double purpose: First, they brace the pump rod; and secondly, securely strengthen the tower, preventing the torsional or twisting strain which breaks down top heavy or improperly constructed steel towers.

THE LADDER is a special safety steel tire sided affair securely bolted all the way up.

THE PLATFORM is strong, and securely bolted to the tower at the correct distance below the wheel.

The galvanizing on these towers is done after every part is complete so that no rust can possibly start. Even the bolts are galvanized.

We do not furnish any part of the mill or mechanism with this tower.



No. 1 Four-Post Galvanized Steel Towers

4-X-1751 For 6 and 8 Foot Premier Windmills

	Wt. Lbs.	Price
20 ft. No. 1, 4-post	335	$27.50
30 ft. No. 1, 4-post	475	38.70
40 ft. No. 1, 4-post	630	51.00

No. 2 Four-Post Galvanized Steel Towers

4-X-1753. For 8 and 10 Foot Premier Windmills

	Wt. Lbs.	Price
20 ft. No. 2, 4-post	375	$28.95
30 ft. No. 2, 4-post	600	42.50
40 ft. No. 2, 4-post	700	56.90
50 ft. No. 2, 4-post	960	80.00
60 ft. No. 2, 4-post	1210	103.25

No. 3 Four-Post Galvanized Steel Towers

4-X-1753. For 10 and 12 Foot Premier Windmills

	Wt. Lbs.	Price
20 ft. No. 3, 4-post	445	$30.45
30 ft. No. 3, 4-post	635	44.50
40 ft. No. 3, 4-post	900	60.35
50 ft. No. 3, 4-post	1265	83.95
60 ft. No. 3, 4-post	1640	109.00

The illustrations below are intended to give you an idea of how we propose to fit up any Pump in our line to suit your well of whatever kind or depth.

READY MADE PUMP OUTFITS

MADE TO FIT YOUR WELL

Lift Pumps

Will raise water from any depth well when cylinder is set down to within 20 ft. of the water, but will discharge no higher than the spout of the pump.

Force Pumps

Can be fitted for any depth well by placing the cylinder at proper distance from the water and will force water to any desired height or distance from the Pump.

3 Way Force Pumps

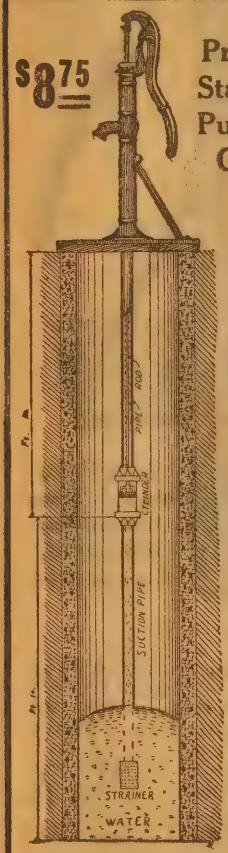
Will discharge water through three way cock under ground through a line of pipe which should be laid below the frost line. The three way cocks or distributing valve is operated by a lever at top of Pump changing the flow of water from the spout of the Pump to the discharge pipe under ground or from the under ground discharge to pump spout instantly while pump is working.

Windmill Pumps

Can also be operated by hand, therefore it is always well to buy a Combined Windmill and Hand Pump if you may expect to operate with Windmill, Gasoline Engine or any kind of power in the future.

We have arranged these outfits for the convenience of our customers showing our most popular selling Pumps. We however can give you an estimate of any other pump in the following pages, fitted for any size well.

$8.75 Premier Standard Pumping Outfit



Our Premier Hand Lift Pump Outfits consist of our 4-W-2267 Hand Lift Pump with 3x10 cylinder and 1¼ galvanized pipe. This Pump has a revolving head so that handle can be operated at any angle. Has a large water way, powerful handle, cast brace tap inside of stand, suitable for the set length as protection from breakage of the cast stand by frost. The cylinders are our very best grade. These outfits are easily installed. We furnish the following outfit for your Pump: Pipe cut to length, Pump Rod cut to length with necessary couplings and Strainer. Note illustration, a guide in installing outfit. An entirely satisfactory Pump.

4-X-2101. Pump and outfit complete for 10 ft. well. Weight approximately 85 lbs. Price **$8.75**

4-X-2103. Pump and outfit complete for 15 ft. well. Weight approximately 98 lbs. Price **$9.65**

4-X-2105. Pump and outfit complete for 20 ft. well. Weight approximately 110 lbs. Price **$11.50**

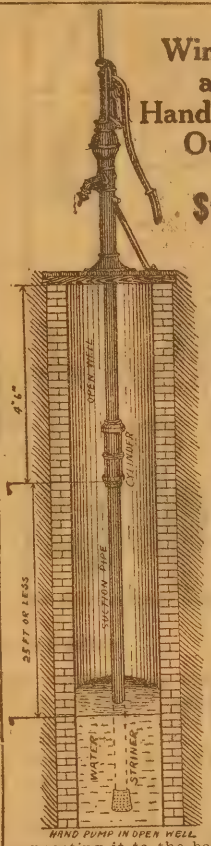
4-X-2107. Pump and outfit complete for 25 ft. well. Weight approximately 120 lbs. Price **$12.30**

4-X-2109. Pump and outfit complete for 30 ft. well. Weight approximately 180 lbs. Price **$13.90**

4-X-2111. Pump and outfit complete for 40 ft. well. Weight approximately 170 lbs. Price **$16.55**

4-X-2113. Pump and outfit complete for 50 ft. well. Weight approximately 190 lbs. Price **$19.50**

Windmill and Hand Force Outfit $15.95



In this outfit we offer you our best seller of above ground Force Pumps. 4-W-2365 Pump is built heavy and strong. The back outlet is tapped for 1" or 1¼" Pipe, has a brass stuffing box, solid piston rod, revolving head. Intended for connecting with Heads: Extra long handle. Water can be drawn from spout or pumped into tank at any distance from the Pump by adding the required amount of Pipe connecting it to the back outlet of the Pump. The spout is fitted for a ¾" hose. May be used in dug wells at 100 ft. if desired, by lowering the cylinder within 15 ft. of water. Cannot be used in driven wells more than 25 ft. deep as cylinder must be within 15 ft. of the water. We cut and thread all pipe, and pump rod furnished. Also all necessary couplings.

Complete outfit consisting of Pump, 3x10 cylinder, 1¼" galvanized Pipe, Pump Rod and Strainer.

4-X-2121. Pump and complete outfit for 20 ft. well. Weight 135 lbs. Price .. **$15.95**

4-X-2123. Pump and complete outfit for 30 ft. well. Weight 180 lbs. Price .. **$18.60**

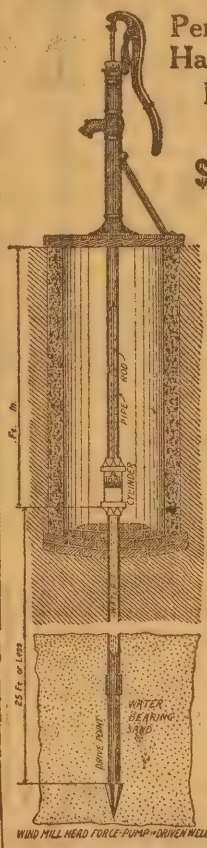
4-X-2125. Pump and complete outfit for 40 ft. well. Weight 220 lbs. Price **$21.25**

4-X-2127. Pump and complete outfit for 50 ft. well. Weight 250 lbs. Price **$23.25**

4-X-2129. Pump and complete outfit for 60 ft. well. Weight 280 lbs. Price **$26.60**

4-X-2131. Pump and complete outfit for 75 ft. well. Weight 325 lbs. Price **$31.40**

Perfection Hand Lift Pump Outfit $12.00



This Hand Lift Pump has closed top. Suitable for ordinary open dug, drilled or driving wells. In every case the cylinder must positively be within 20 ft. of the water. This Pump is in great demand for shallow wells where a large amount of water is required. We furnish this outfit with our 4W 2281 Single Acting Lift Pump, pipe for the required depth of well as listed below. 3x10 polished iron cylinder, wire gauge with brass jack well point as shown in illustration. Pump rod sufficient to reach rear cylinder, threaded and with necessary couplings. This Pump can be used to a great advantage where you wish to drive or drill a shallow well. It is necessary in all cases to have a subwell at least 4½ ft. deep in which you place your cylinder. Then you can drill or drive your Pipe for 20 to 25 ft. below this and have a perfectly serviceable well. Prices as quoted below are for outfits arranged this way. In all cases you must put your cylinder within 20 ft. of the water.

All outfits furnished with 1¼" galvanized pipe.

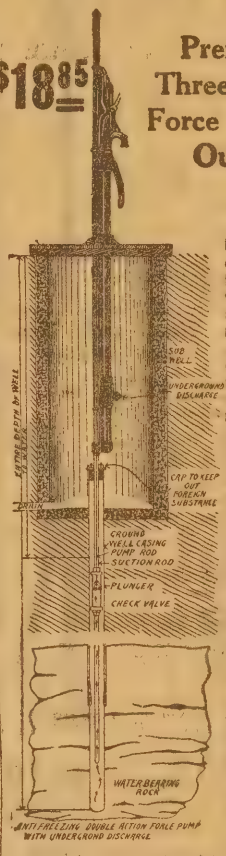
4-X-2153. Pump and complete outfit for 20 ft. well. Weight 100 lbs. Price. **$12.00**

4-X-2155. Pump and complete outfit for 30 ft. well. Weight 130 lbs. Price .. **$14.65**

4-X-2157. Pump and complete outfit for 40 ft. well. Weight 165 lbs. Price .. **$17.85**

4-X-2159. Pump and complete outfit for 50 ft. well. Weight 190 lbs. Price **$20.50**

$18.85 Premier Three Way Force Pump Outfit



Note drive or sub-well 4½ feet deep which should always be made over a drilled or driven well so that easy access can be had to the cylinder. Casing should be cut within 4½ ft. of the surface. Can be cut out with a cold chisel after subwell is dug; then be closed water tight with a Sanitary Well Cap or heavy block of wood to prevent any substance from falling into the well. These outfits are furnished with No. 4-W-2437 Pump, 1¼" galvanized pipe and rod to set the cylinder within 15 ft. of the water. Suction pipe from the bottom of the cylinder down into the water and strainer. Pipe and rods are all cut and threaded with couplings. Will operate with any kind of power, no matter how deep, and deliver water to any distance or height. A 3x10 Brass Tube Cylinder furnished.

4-X-2141. Pump and complete outfit for 20 ft. well. Weight about 110 lbs. Price **$18.85**

4-X-2143. Pump and complete outfit for 30 ft. well. Weight about 160 lbs. Price **$22.25**

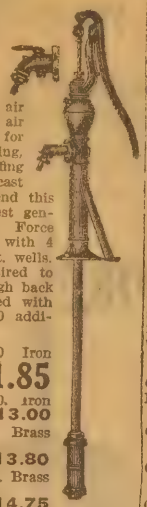
4-X-2145. Pump and complete outfit for 40 ft. well. Weight about 200 lbs. Price **$24.95**

4-X-2147. Pump and complete outfit for 50 ft. well. Weight about 230 lbs. Price **$27.60**

4-X-2149. Pump and complete outfit for 60 ft. well. Weight about 250 lbs. Price **$30.25**

A Selection Of Quality Pumps Priced Low

Extra Heavy Hand Force Pump



For deep or shallow wells made of the best materials by skilled mechanics. Extra long handle. This pump is anti-freezing. Has a large air chamber, internal air tubes, back outlet for discharge, brass covering, piston rod, brass stuffing box and heavy cast braces. We recommend this Pump as the very best general purpose Hand Force Pump made. Fitted with 4 ft. set length for 25 ft. wells. If this Pump is desired to discharge water through back outlet it can be fitted with a cock spout at $2.00 additional.

4-X-2357. 3x10 Iron Cylinder. Price **$11.85**

4-X-2359. 3½x10. Iron Cylinder. Price.... **$13.00**

4-X-2361. 3x10. Brass Body Cylinder. Price **$13.80**

4-X-2363. 3½x10. Brass Body Cylinder. Price **$14.75**

Extra Heavy Windmill and Hand Force Pump

This pump is the same in construction as our high grade Pump No. 4-X-2357 with the exception that it is built for windmill and hand power. Will force water through a hole to any desired elevation. If it is desired to discharge water through the back outlet order with cock spout at $2.00 additional. Fitted with 4 ft. set length for 25 ft. well. Can be used in deeper wells by simply adding pipe and pump rods, keeping cylinder within 15 ft. of the water. Is fitted with brass stuffing box and heavy cast iron brace. Built for heavy work.

4-X-2365. 3x10. Brass Cylinder. Price **$11.20**

4-X-2367. 3½x10. Iron Cylinder. Price... **$12.35**

4-X-2369. 3x10. Brass Cylinder. Price... **$13.10**

4-X-2371. 3½x10. Brass Cylinder. Price... **$14.10**

Double Acting Ratchet Head Force Pump

This Pump has adjustable base brass upper cylinder goose neck spout with hose connections, constructed to go in 5⅝ in. casing ratchet or gear head. It is an up-to-date and improved hand pump. By this construction the leverage is so much increased that a deep well being hard to pump with a fulcrum handle becomes easy to work with a Ratchet Head Pump. We furnish with this pump a lower cylinder which can be lowered to within 10 ft. of the water and used in wells of nearly any depth.

4-X-2411. 2½ x 10. Polished Iron Cyl'der. Price **$10.25**

4-X-2413. 3x10. Polished Iron Cylinder. Price **$10.40**

4-X-2415. 2⅝ x 10. Brass Cylinder. Price **$12.50**

4-X-2417. 3x10. Brass Cylinder. Price.. **$13.20**

Pumps are Divided Into Two Classes —Lift Pump and Force Pump

Write Us for General Pump Information, Instructions, Capacity, Etc.

Premier Wind and Hand Force Pump Standard

The Premier Windmill standard is designed for Windmills and Hand Force Pumps. Another all above ground Force Pump which is built heavy and strong with a plain or cock spout as desired. Fitted for 1¼ in., 1½ in. or 2 in. Pipe and with back outlet for 1¼ in. Pipe. Brass stuffing box, piston rod, revolving box, piston rod, revolving head, extra long handle and heavy braces. There is nothing better in Force Pump Standard. This is not a complete Pump and the price includes standard only. Standard is fitted for 6 in. stroke. In ordering, be sure and specify size of pipe for which you wish Pump fitted. Cock Spout for $1.25 additional.

4-X-2373. Fitted for 1¼ or 1½ in. pipe. Price..... **$8.10**

4-X-2375. Fitted for 2 inch pipe. Price **$8.15**

Double Acting Horizontal Force Pump

Brass lined cylinder, extension air pump brass piston, rod and valve seats, easy working, compact, powerful, substantial. This pump is used on our water works outfits for pumping water and air. This is the most powerful, reliable and efficient pump made for elevating water from well or cistern to attic tank or upper floors. Easy working against high pressure. It is double acting and has a capacity of about 300 gallons per hour. Has iron handles and provided with convenient hand holes. Each pump is tested at our factory and is guaranteed positively water and air tight. Cylinder heads are removable. Valves are easily unpacked by unscrewing. Piston rod and valve seats are brass. Both sides are tapped for 1¼ in. suction and 1 in. discharge.

4-X-2395. Horizontal Force Pump, 3 in. brass lined cylinder. Price..... **$12.95**

When pump is used as combined water and air pump, we furnish same pump equipped with ¼ in. pet cock and ¼ in. check valve. Has pneumatic attachment to screw in cylinder head. To pump air and water simply open pet cock.

4-X-2455. Combined Water and Air Pump. Price **$15.45**

OUR LEADER PUMP

The greatest pump bargain ever offered. Has a regular 4 ft. set length. Adapted for cisterns or wells not over 25 ft. deep. By lowering cylinder within 10 ft. of water it can be used in deeper wells. Has 6 in. stroke. Fitted with 3x10 iron cylinder. The top is a separate casting attached with a set screw, allowing you to set the handle to any position you wish. It is anti-freezing. Body is cast and is large and strong and nicely finished. A wonderful bargain.

4-X-2267. Price..... **$6.75**

Our Renown Force Pump

A Force Pump that will do the business and is very cheap. Complete with hose connection. A wonderful bargain and gives absolute satisfaction. Cylinder 4 in. down for cistern wells or wells 25 ft. deep or less. This pump, however, is adapted to wells as deep as 50 or 75 ft. The base may be adjusted after the pump is set by merely unloosening the set screw or raising or lowering the pump to the upper height.

4-X-2401. 3x10 Iron Cylinder. Price **$8.40**

4-X-2405. 3x10 Brass Cylinder. Price **$10.50**

For Windmill Head add **$2.50**

Double Acting Under Ground 3-Way Force Pump

The latest thing in an Improved Anti-Freezing Hand Pump, for any depth well. For windmill or hand power. Quick-acting cam, 3-way lever, adjustable base, cast iron brace, large air valve, complete with hose connection, also cylinder and strainer. This is the best force pump to purchase for general purposes. It will discharge a great stream of water to any distance. Can be fitted with 1½ in. pipe without extra cost and with adjustable stroke.

6, 8 and 10 in. at an additional cost of **$2.25**

Ratchet Head at additional cost of **$2.00**

4-X-2435. 2½ x 10 Brass Body Cyl'der. Price **$14.60**

4-X-2437. 3x10 Brass Body Cylinder. Price **$16.00**

4-X-2439. 3½ x 10 Brass Body Cylinder at **$16.75**

Double Acting Hand Force Pump

This Double Acting Force Pump has adjustable base, brass upper cylinder, goose neck spout with hose connection, constructed to go inside 5⅝ in. casing. Especially adapted to use with hose about house or barn, throws a steady stream and is easy to operate. This is a very neat, high class force pump at a very low price. For wells deeper than 25 ft. add pipe and pump rods to put cylinder down within 10 to 15 ft. below water mark in well.

4-X-2427. 2½x10 in. Iron Cyl. inder. Price **$10.25**

4-X-2429. 3x10 in. Iron Cylinder. Price..... **$10.45**

4-X-2431. 2½x10 in. Brass Cylinder. Price **$12.50**

4-X-2433. 3x10 in. Brass Cylinder. Price **$13.25**

Premier Double Acting 3-Way Pump

For Windmill and Hand Power Under Ground Double Acting 3 Way Force Pump. This Pump is one of our most popular sellers which we have ever offered. They simply give perfect satisfaction under all conditions. This Pump is fitted with an up-to-date cam lever for quick adjustment and distributing valve. By merely throwing the lever you can change the Pump from spout supply to third way supply and force the water to tank or out on the lawn or any place you may desire. Pump is fitted with adjustable base, hose connection, strainer, brass upper cylinder, adjustable stroke and is tapped for 2 in. pipe with wood rod connection for tubular wells of any depth.

4-X-2425. Without lower cylinder. Price **$15.75**

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Dependable Pumps and Sprays

Pitcher Spout Pumps

For cisterns and shallow wells. Bored and polished, finished in two coat green enamel paint, bronze striping. Bearer top revolves so handle can operate at any angle by raising handle to extreme height. Can drain to prevent freezing. Fitted for 1¼-in. pipe unless otherwise specified.

4-X-2247. Size No. 1, Pitcher Spout Pump, 2½-in. Iron cylinders. Price.... **$2.75**

4-X-2249. Size No. 1, 2½-in. Brass Lined Cylinder. Price.....**$3.90**

4-X-2251. Size No. 2, 3 in. Iron Cylinder.**$3.00**

4-X-2253. Size No. 2, 3-in. Brass Lined Cylinder. Price.....**$4.50**

Heavy Hand Lift Standard

This Standard is suitable for any depth well that can be pumped by hand. It is strongly built with revolving head, handle can be operated from any angle at the spout, 6-inch stroke, fitted for ½-in. pipe. Large wafer-ways, strong iron brace. It is a very practical standard to use in drilled or dug wells. Prices quoted are for standard without cylinder. This standard can be used with our Cylinder 4-X-2723, 4-X-2724, 4-X-2725.

4-X-2299. Price **$4.00**

Perfection Anti-freezing Lift Pump

This Pump is set length fitted for wells not deeper than 25 ft., but cylinder can be extended with additional pipe and pump rod into any depth well that can be pumped by hand.

It is equipped with a heavy, strong handle, revolving top so that the handle can be operated at any angle from the spout. It has a large spout and is fitted with very best polished iron, brass lined, or brass body cylinder. Fitted with a 4-ft. set length for 6-in. stroke. Fitted for 1¼-in. Pipe.

4-X-2269. 2½-10-in. Iron Cylinder. Price.... **$6.50**

4-X-2271. 3x10-in. Iron Cylinder. Price **$6.75**

4-X-2275. 2½x10-in. Brass Body Cylinder. Price **$8.30**

4-X-2277. 3x10-in. Brass Body Cylinder. Price **$8.75**

Closed Top Anti-freezing

This Pump is designed for use in Public places where Children or meddlesome Grown-ups may drop stone, metal, etc., into the open top that will damage the valves or make it necessary to open up for repairs. It is built for deep drilled and dug wells, also for drive wells. Has revolving top. Furnished in either iron, brass lined or brass body cylinder. This pump is furnished with cylinder placed 4 ft. down for 25 ft. well but can be fitted for any depth well by using additional pipe, keeping cylinder within 15 or 20 ft. of the water. Fitted for 1¼-in. Pipe.

4-X-2281. 3x10-in. Iron Cylinder. Price **$7.30**

4-X-2285. 3x10-in. Brass Body Cylinder. Price **$8.75**

Improved Windmill Standard Adjustable Stroke

Specially adapted for deep hard pumping wells. Fitted with strong long range bearer top, long heavy handle and adjustable stroke, 6, 8 and 10 in. For Windmills, Gasoline Engines, Pump Jacks or Hand Power. Fitted for 1¼, 1½ or 2 in. pipe. Always shipped for 2 in. pipe with malleable connections for wood pump rods unless otherwise specified.

4-X-2297. Price **$6.00**

Two-Way Kitchen Force Pump

This Pump is fitted with brass cylinder, brass valve seats, brass piston rod and stuffing box. It is tapped on top in the back of the head for 1-in. discharge pipe.

Has a spacious air chamber directly over cylinder at rear of Pump with brass compression top with hose connection. It is a very powerful Pump and will maintain a high pressure. We recommend that this Pump be placed within 25 ft. of the water. Complete with cock spout.

4-X-2263. Size No. 1, 2½-in. Brass Cylinder fitted for 1¼-in. pipe. Price.. **$6.25**

4-X-2265. Size No. 2, 3-in. Brass Cylinder fitted for 1¼-in. pipe. Price **$6.75**

Improved Kitchen Force Pump

This Pump has a brass cylinder, brass valve seat, brass piston rod and stuffing box. Combines both features of a lift and force pump with a syphon spout with hose connection. It is tapped on top in the back of the head for a 1-in. discharge pipe. It will force the water to any desired elevation to the second or third floor or out on the lawn. The Trip to drain this Pump is operated by raising the handle to the extreme height.

4-X-2264. Size No. 1, 2½-in. Brass Body Cylinder, fitted for 1¼-in. pipe. Price **$5.30**

4-X-2266. Size No. 2, 3 in. Brass Body Cylinder, fitted for 1¼-in. pipe. Price **$5.85**

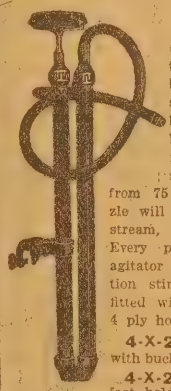
Anti-freezing Windmill and Hand Lift Pump

This is a very substantial general purpose Pump. Built specially strong for heavy pumping. It can be quickly changed from hand to windmill by simply withdrawing the malleable pump pin from the pump handle to connect on the windmill pump rod. Furnished with the best polished iron, brass lined or brass body cylinder. Pump is furnished with a 4-ft. set length suitable for wells up to 30 ft. deep. Also can be used for wells for any depth by using additional pipe and pump rods. Always keep the cylinder within 10 to 15 ft. of the water.

4-X-2293. 3x10-in. Iron Cylinder fitted for 1¼-in. pipe. Price **$9.15**

4-X-2295. 3x10-in. Brass Body Cylinder fitted for 1¼-in. pipe. Price.....**$11.25**

"Perfection" Spray Pump

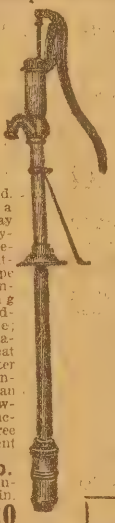


These Pump Barrels are made of seamless brass tubing. The bottom is brass with brass gauze strainer. The valves are hard vulcanized rubber balls. The pressure which is brought on the down stroke can be easily made from 75 to 125 lbs. The nozzle will throw a spray or solid stream, sprinkle or fine mist. Every pump is equipped with agitator to keep spraying solution stirred up. Each pump is fitted with 3 ft. of extra heavy 4 ply hose and nozzle.

4-X-2601. Price with bucket attachment **$4.20**

4-X-2601. Price, fitted with foot holder instead of bucket attachment **$4.25**

Big Mouth Stock Pump

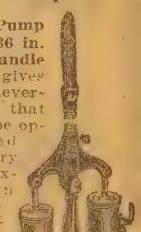


Especially adapted for stockmen's use. Where large volumes of water are to be realized by hand, this is the pump which we recommend. Built with a large waterway and reservoir, syphon spout, revolving head fitted for 2-in. pipe with 4-in. cylinder, strong braced and adjustable base, which is a feature of the great convenience after the pump is installed as it can be raised or lowered to raise suction pipe to free it from sediment at the bottom.

4-X-2290. 4x10 Iron Cylinder fitted for 2-in. pipe. Price **$10.20**

4-X-2292. 4x10 Brass Cylinder fitted for 2-in. pipe. Price **$12.25**

Double Acting Air Pump

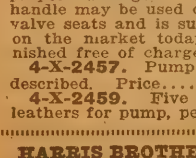


This Pump has a 36 in. iron handle which gives ample leverage so that it can be operated with very little exertion. The cylinder and valves are of brass and pump is double acting and will provide a large column of air. The pump handle can be removed when pump is not in use. Diameter of the cylinder, 3½ in., length, 5 in.

4-X-2421. Price **$19.95**

Premier Thresher Tank Pumps

$12.85

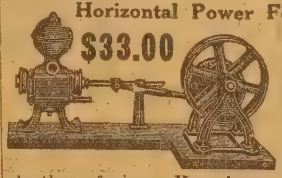


Large capacity double acting five-inch cylinder especially recommended where a large amount of water is required. Capacity, one to two barrels per minute. Furnished with goose neck discharge for one-inch hose, and suction for two-inch hose connection. By removing couplings can be used for two-inch iron pipe connection, or smaller size by using proper bushings. Has reversible head so that handle may be used on either side. Has brass valve seats and is superior to any tank pump on the market today. Suction strainer furnished free of charge with each pump.

4-X-2457. Pump complete as described. Price.....**$12.85**

4-X-2459. Five inches crimped plunger leathers for pump, per set of two.....**96c**

Horizontal Power Force Pump

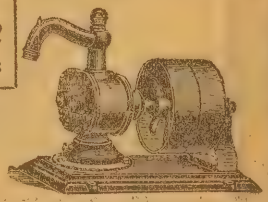


$33.00

Capable of working against moderately high pressure. All Bearings are babbitted. Valves are brass with leather facing. Has brass Stuffing Nut. Cross Head is heavy malleable iron. Air cocks are provided to drain pump in cold weather. Occupies floor space 22x44 inches. Has a vertical suction lift 30 feet or less. Size tight or loose pulleys, 14x2½ inches. Gearing ratio 3 to 1. Shipped from factory, Central Indiana.

	Dia. Cyl.	Suction Pipe.	Discharge Pipe.	Brass Cylinder.	Price
4-X-2537..	3 in.	1½ in.	1¼ in.		$33.00

Rotary Power Force Pump



Largest capacity power force pump made. Especially adapted for irrigation purposes. Will force water 200 feet and throw a solid stream of water 30 feet. Spout is threaded for iron pipe at end and also at top. Bearings are babbitt lined. Cap on upper discharge can be placed on end of spout and water discharged vertically.

	Capacity, Gals.	Suction Pipe.	Discharge Pipe.	Pulleys Inches.	Without Balance Wheel.
4-X-2503..	13	1¼	1	7x2½	$16.25
4-X-2505..	14	1¼	1	7x2½	17.90
4-X-2507..	17	1½	1¼	8x2½	20.85
4-X-2509..	27	2	1½	12x3½	34.00
4-X-2511..	36	2	2	12x3½	38.50

4-X-2513. Balance Wheel and Handle for Hand Power, extra..... 4.75

HIGH GRADE PUMP CYLINDERS

THE PUMP CYLINDER IS THE MOST IMPORTANT PART OF THE PUMP and is that part that raises the water, and unless well made and the plungers and valves all fit properly, the most expensive working head and other parts of pump are rendered useless. Our cylinders are most carefully made, bored true, and we guarantee that the plungers fit accurately.

The cylinders which we offer below are the same as fitted to our regular line of pumps.

A 10-inch cylinder has a 6-inch stroke; a 12-inch cylinder an 8-inch stroke; a 14-inch cylinder a 10-inch stroke and a 16-inch cylinder a 12-inch stroke.

2-inch cylinders are fitted for 1-inch pipe; 2½ or 3-inch cylinders fitted for 1¼-inch pipe; 3½-inch for 1½-inch pipe and 4-inch cylinders fitted for 2-inch pipe.

We recommend brass body cylinders as they outwear the iron cylinders and work more easily

IRON BODY BRASS LINED CYLINDERS
4-X-2723

Diam. Inch.	Length Inches 10	12	14	16
2	$4.60	$5.00	$5.25	$5.55
2½	4.95	5.25	6.10	6.35
3	5.55	5.85	6.50	6.95
3½	6.50	6.95	7.90	8.30
4	8.00	8.80	10.00	10.80

BRASS BODY CYLINDERS.
4-X-2724

Diam. Inch.	Length Inches 10	12	14	16
2	$4.60	$5.00	$5.25	$5.55
2½	4.95	5.25	6.10	6.35
3	5.55	5.85	6.50	6.95
3½	6.50	6.95	7.90	8.30
4	8.00	8.80	10.00	10.80

IRON BODY CYLINDERS.
4X2725

Diam Inch.	Length Inches 10	12	14	16
2	$1.81	$2.65	$2.80	$2.90
2½	2.10	2.90	3.25	3.40
3	2.45	3.40	3.60	3.85
3½	3.40	4.35	4.95	5.45
4	4.40	5.55	6.50	7.10

PLUNGER LEATHERS.

4-X-2727. Made from best oak tanned Leather.

Diam. Cyl.	2	2½	3	3½	4
Each	18c	23c	33c	46c	72c

LOWER VALVE LEATHERS.

4-X-2726. Made from best oak tanned Leather.

Diam. Cyl.	2	2½	3	3½	4
Each	9c	12c	16c	22c	25c

EUREKA TUBULAR WELL CYLINDER

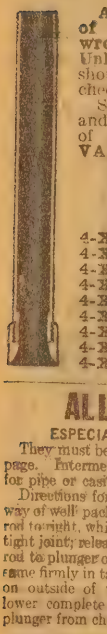
MADE OF SEAMLESS DRAWN BRASS TUBING with brass valves and designed to fit inside of the pipe in sizes as listed. The Cylinder is perfectly flush, having no caps, making it possible to be slipped into pipe and set at any depth desired.

It can be readily removed for repairs or taken up and replaced in another well.

A seating tool is used for this purpose in connection with 1-inch pipe of sufficient length to lower seating tool to the depth which cylinder is to be placed. A spring coupling holds firmly to the walls inside of pipe. Length of stroke 12 inches.

	Size	Each
4-X-2777	2 inch	$ 5.25
4-X-2778	2½ inch	8.00
4-X-2779	3 inch	11.50

WROUGHT IRON TUBULAR WELL CYLINDERS



A polished tubular well cylinder, made of galvanized or plain extra strong wrought-iron pipe, bored and polished. Unless otherwise specified, we will furnish with shoulder for holding turned coupling for seating check valves.

Shoulder in 24 and 36 inch are three inches and in the 48 inch length, 12 inches from bottom of cylinder. **PRICES DO NOT INCLUDE VALVES.**

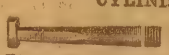
	Diam. Cyl. Inch	Length Cyl. Inch	Painted with Driving Shoe	Galv. with Driving Shoe	Painted without Driving Shoe	Galv. without Driving Shoe
4-X-2728	2	24	$2.75	$3.20	$2.05	$2.55
4-X-2729	2	36	3.65	4.10	2.95	3.45
4-X-2730	2	48	4.55	5.20	3.85	4.50
4-X-2731	2½	36	6.05	6.80	5.20	5.90
4-X-2732	2½	48	7.70	8.40	7.55	7.95
4-X-2733	3	36	8.20	9.10	7.30	7.80
4-X-2734	3	48	10.45	11.15	9.55	10.00
4-X-2735	4	36	12.75	14.30	10.90	12.50
4-X-2736	4	48	15.90	18.20	14.00	16.35

Brass Lined Tubular Well Cylinder

This cylinder is made of wrought-iron pipe bored out and a brass lining of seamless brass tubing inserted and swaged into position. This cylinder possesses the smoothness of an all-brass tube cylinder, and is not as liable to become injured by external pressure or sudden jars. We recommend the use of this cylinder in preference to the polished wrought-iron tubular well cylinder, as the pump will work easier and the leathers on the plunger will wear longer. Unless otherwise specified, this cylinder will be furnished with shoulder three inches from bottom. **Prices Do Not Include Valves.**

	Diam. of Cylinder In.	Length of Cyl. In.	Price Galv. with Driving Shoe	Price Galv. without Driving Shoe
4-X-2737	2	24	$ 5.50	$ 4.75
4-X-2738	2	36	7.00	6.25
4-X-2739	2	48	8.75	8.20
4-X-2740	2½	24	7.40	6.35
4-X-2741	2½	36	9.50	8.75
4-X-2742	2½	48	12.75	11.60
4-X-2743	3	24	9.10	7.75
4-X-2744	3	36	11.75	10.45
4-X-2745	3	48	15.45	14.00
4-X-2746	4	36	17.25	15.00
4-X-2747	4	48	21.85	19.55

SEATING TOOL USED IN CONNECTION WITH EUREKA TUBULAR WELL CYLINDERS.



For Placing the Cylinder in Position With Pipe, also for drawing cylinder up out of well.

In ordering, Order Same Size Tool as Cylinder.

4-X-2780 Size Inches	2	2½	3
Price, each	$0.55	.80	1.10

TURNED COUPLINGS

Wrought - iron Couplings turned and faced; used to suspend strainer from shoe or shoulder in well and to seat tubular well check valve. Threaded right hand.

4-X-2781. For 2 in. cylinder. 1¾-inch strainer. Each....18c

4-X-2782. For 2 in. cylinder. 1-inch strainer. Each.....32c

4-X-2783. For 2½ in. cylinder. 1¼-inch strainer. Each....32c

4-X-2784. For 2½ in. cylinder. 1½-inch strainer. Each....38c

4-X-2785. For 3 in. cylinder. 1½-inch strainer. Each.....49c

4-X-2786. For 3 in. cylinder. 2-inch strainer. Each.....95c

4-X-2787. For 4 in. cylinder. 2½-inch strainer. Each....96c

ALL BRASS WORKING BARRELS

ESPECIALLY RECOMMENDED FOR DEEP TUBULAR WELLS.

They must be fastened with well packer and gum packer shown elsewhere on this page. Intermediate sizes not listed will take price of next larger size. Furnished for pipe or casing. In ordering specify correct inside diameter of pipe or casing.

Directions for Fastening:—Attach seating tool to pump rod, insert in key way of well packer, lower in well to place you wish to seat cylinder, turn pump rod to right, which forces taper wedge into rubber ring, expanding same and making tight joint; release seating tool and withdraw rod from well. Now attach pump rod to plunger of cylinder, screw check valve to bottom of plunger below drive same firmly in taper end of cylinder. Now take gum packer, shown opposite, place on outside of working barrel, crowding until it expands to size of well; now lower complete outfit to place in well where well packer is fastened, unscrew plunger from check valve and attach pump rod to pump head.

	Size of Well Inches	Inside Dia. of Cylinder Inches	Length Stroke Inches	Length Barrel Inches	Price of Cylinder Complete
4-X-2748	2	1 13/16	10	23	$11.75
4-X-2749	2	1 13/16	14	27	12.30
4-X-2750	2	1 13/16	24	37	14.00
4-X-2751	2	1 13/16	36	49	15.65
4-X-2752	2½	2¼	10	24	15.70
4-X-2753	2½	2¼	14	28	16.25
4-X-2754	2½	2¼	24	38	17.35
4-X-2755	2½	2¼	36	50	19.00
4-X-2756	3	2¾	10	26	20.70
4-X-2757	3	2¾	14	30	21.85
4-X-2758	3	2¾	24	40	23.50
4-X-2759	3	2¾	36	52	25.75
4-X-2760	3½	3¼	10	28	32.50
4-X-2761	3½	3¼	14	32	33.60
4-X-2762	3½	3¼	24	42	36.95
4-X-2763	3½	3¼	36	54	41.40
4-X-2764	4	3¾	10	28	43.65
4-X-2765	4	3¾	14	32	45.35
4-X-2767	4	3¾	24	42	48.00
4-X-2768	4	3¾	36	54	51.00
4-X-2769	4½	4¼	10	34	53.75
4-X-2770	4½	4¼	14	38	55.00
4-X-2771	4½	4¼	24	48	57.50
4-X-2772	4½	4¼	36	60	61.00
4-X-2773	5	4¾	24	48	78.95
4-X-2774	5	4¾	36	60	83.40

GUM PACKER

Gum Packers with brass attached for seating working barrels.

4-X-2749½

Diameter of Well Casing Inches	Price
2	$1.40
2½	2.00
3	2.65
3½	3.50
4	4.75
4½	5.60
5	6.25
6	8.60

WELL PACKER

Well Packer for making tight joints between strainer and well casing; also used as support for all brass working barrel.

4-X-2748½

Diameter Bottom of Well, of packer Inches. threaded for pipe,	Inches	Price.
2	1¼	$1.90
2½	1½	2.50
3	2	3.35
3½	2	5.95
4	2½	7.50
4½	3	9.45
5	3½	11.20
6	4	15.70

WELL CASING

See Index for Bargains in "S. & S." well casings at 50 per cent saving.

SAND PUMP.

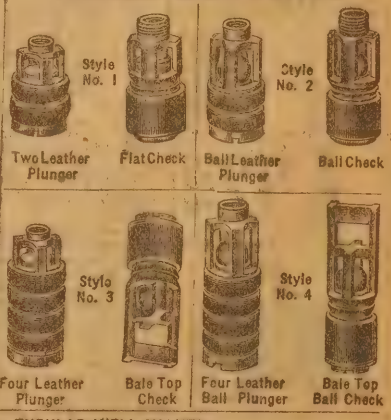
4-X-2799½ Used for removing sand from drilled or bored wells. Is strong and well made and can be furnished in any size required. Usual length, 48 inches, but can be made longer if desired.

Three inch... **$4.65**

Four-inch $6.20

Price for 5, 6 and 7-inch and larger sizes on application.

Tubular Well Valves



TUBULAR WELL VALVES.

Our Tubular Well Valves are heavy and strong and of the best quality of brass, carefully and well finished inside and out, fitted with the best oak tan leathers. Prices quoted below per set consist of check and plunger valve.

	Size Inches	Leathers	Price Per set		Size Inches	Leathers	Price Per set
4-X-2788	2	2	$2.80	4-X-2794	4	2	$13.30
4-X-2789	2	4	3.50	4-X-2795	4	4	16.00
4-X-2790	2½	2	4.55	4-X-2796	5	2	24.75
4-X-2791	2½	4	5.40	4-X-2797	5	4	26.25
4-X-2792	3	2	6.65	4-X-2798	6	2	29.40
4-X-2793	3	4	8.00	4-X-2799	6	4	32.55

Watt's Corn Shellers at Big Saving! See Them!!

PERFECTION HYDRAULIC RAMS.

Here is one of the most wonderful machines for water supply ever placed on the market. It will automatically lift water to a tank or reservoir, providing it is placed so as to obtain a fall of 2 ft. or more from the stream, or source of supply to this ram.

As example: if you are near a stream, lake or body of water, so situated that you can secure a fall of 2 ft. or more, from the water to the location of the ram, the ram will automatically discharge a certain portion of the water to a point considerably above and beyond the ram.

Our Perfection Ram should be placed below a Spring or stream of water at a distance varying from 25 to 50 ft. For every 10 ft. that you wish to elevate the water, the ram must be placed one foot below the level of the Spring. Should you wish to elevate the water to a height of 50 ft. ram would have to be placed at a point 5 ft. lower than the source of supply.

A ram with a 10 ft. fall will drive about 1/7 of the water furnished a distance of 100 to 200 rods to a position 100 to 200 ft. above the level of the ram

Order No.	Size No.	Supply per Min. to Operate Ram	Length of Drive Pipe	CALIBER OF PIPES Drive	CALIBER OF PIPES Discharge	Price
4-X-2517	3	2 to 4 gal.	50 to 75 ft.	1 in.	½ in.	$15.00
4-X-2519	4	3 to 7 gal.	50 to 100 ft.	1¼ in.	¾ in.	20.35
4-X-2521	5	6 to 11 gal.	50 to 150 ft	2 in.	1 in.	26.15
4-X-2523	6	11 to 25 gal.	50 to 200 ft.	2½ in.	1¼ in.	47.50

GALVANIZED STEEL PUMP RODS.

This Rod is used for connecting Pump Cylinders to Pump Standards. They are heavily galvanized and come in lengths of 18 feet **not threaded.**

	Diameter Inches.	Price per Foot.
4-X-2605.	½	6c
4-X-2607.	7/16	6c

Extra for threading either size. Price for each thread 2c.

We will cut rod special lengths including threads without coupling as quoted below:

	Diameter, Inches.	Price per Foot.
4-X-2609.	½	8c
4-X-2611.	7/16	8c

GALVANIZED PUMP ROD COUPLINGS.

To be used in connection with Galvanized Steel Pump Rod. These couplings are malleable iron heavily galvanized and are threaded.

	Size, inches.	No. of threads to the inch.	Price, each.
4-X-2613.	½	14	5c
4-X-2615.	7/16	14	6c
4-X-2617.	7/16x½ Reducing Pump Rod Coupling. Price, each		6c

"LIGHTNING" PUMP STOCK AND DIES.

4-X-2619. 2 dies and 1 stock. Will cut full threads. Size, inches ¾ & 7/8. Price, each **$5.60**

WOOD PUMP RODS.

Made of first quality ash thoroughly seasoned. Furnished complete with couplings, lengths ranging from 18 to 21 feet and are shipped in random lengths. EXTRA CHARGE IF CUT TO LENGTH.

	Price Per Foot
4-X-2625. 1½-inch Octagon with Wrought Iron Couplings. Weight per hundred feet, 30 pounds	$0.13½
4-X-2627. 1¾-inch Octagon with Wrought Iron Couplings. Weight per hundred feet, 90 pounds	.21
4-X-2629. 1¾-inch Octagon with Wrought Iron Couplings. Weight per hundred feet, 100 pounds	.34

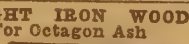
WOOD PUMP ROD COUPLINGS.

Galvanized Malleable Wood Rod Couplings.

For Round Ash Pump Rods.

4-X-2633.	1-inch Malleable Iron. Price per Set	$0.35
4-X-2635.	1¼-inch Malleable Iron. Price per Set	.37

GALVANIZED WROUGHT IRON WOOD ROD COUPLINGS For Octagon Ash Pump Rod.



		Length of Coupling Inches	Size Screw Pin Inches	Price Per Set
4-X-2637.	1½	25	½	$1.68
4-X-2639.	1¾	35	½	2.60
4-X-2641.	1¾	43	1	4.35

STUFFING BOX HEADS.

Fig. 1 Fig. 2 Fig. 3

Used in connection with tubular wells in place of Pump Standards.

Stuffing Box Head (fig. No. 1) with side outlet made of iron with polished steel rod. Fitted at top end with square wood rod socket. Bottom for 7/16-inch steel rod.

	Pipe Size, inches	Stroke Inches	Price Each
4-X-2643.	1¼	10	$3.35
4-X-2645.	1½	10	3.35
4-X-2647.	2	10	3.35

Stuffing Box Head (Fig. No. 2) made of iron with 7/16-inch polished steel pump rod.

	Pipe Size, inches	Stroke Inches	Price Each
4-X-2649.	1¼	10	$2.10
4-X-2651.	1½	10	2.10
4-X-2653.	2	10	2.10

Stuffing Box Head (Fig. No. 3) made of cast brass with 7/16-inch polished steel pump rod.

	Pipe Size, inches	Stroke Inches	Price Each
4-X-2655.	1¼	10	$2.70
4-X-2657.	1½	10	2.70
4-X-2659.	2	10	2.70

DRIVE WELL POINTS.

They are made of wrought iron pipe, galvanized inside and out after the holes are punched. They are covered with **brass gauze** and have a great filtering surface. No. 60 gauze is generally used. No. 100 gauze is for quick sand. We can furnish either flush point for tubular well or with cast point for driving. Be sure and give number when ordering.

4-X-2661. Cast Point.
4-X-2663. Flush Point.

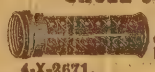
Diam. Inches.	Length, Inches.	No. 60 gauze.	No. 100 gauze.
1¼	24	$1.65	$3.70
1¼	30	2.10	4.55
1¼	36	2.58	5.50
1½	42	3.05	6.45
1½	30	2.75	5.40
1½	36	3.30	6.50
1½	48	4.48	8.70
2	36	4.85	8.85

FOOT VALVES.

A combination Foot Valve and Strainer. It is placed on the end of pipe in the bottom of cistern or well and prevents anything passing into the pipe and thereby choking the cylinder. It also serves the purpose of a check valve, keeping water in the pipe and making priming unnecessary. Price each.

21-X-2665.	For 1¼ in. pipe	$0.65
21-X-2667.	For 1½ in. pipe	.86
21-X-2669.	For 2 in. pipe	1.15

GAUZE COVERED STRAINERS.



Used on the end of well and cistern pipe and is covered with brass cloth.

4-X-2671.

Size, inches	1	1¼	1½	2
Price each	$0.42	$0.48	$0.54	$0.75

WATER CONDUCTORS.

Used to conduct water from spout of pump to tank and are made with a swivel so water can be carried in any direction from the pump.

21-X-2673. Size, In.	1¼	1½
Price each	$0.47	$0.64

WELL WHEELS

4-X-2675. For use with rope size, ½ inch or smaller. Can also be used with regular well chain. Width of frame 10 inches. Japanned finished. Price **85c**

DRIVE CAPS.

Used for driving pipe for Drive Wells. Guaranteed not to crush the thread.

21-X-2677.

Size inches	1¼	1½	2	2½	3	4
Price each	$0.28	$0.34	$0.62	$1.40	$1.75	$2.10

CAST STEEL DRIVE SHOES.

These shoes are made of cast special steel, and have a recess as shown in illustration to prevent the pipe from spreading or breaking off at end of threads. They have an inside shoulder to prevent the pipe from being forced through the shoe.

4-X-2679.

Size inches.	Price each.	Size inches.	Price each.
2	$1.12	4	$3.85
2½	1.54	4½	5.25
3	2.10	5	5.95
3½	3.50	6	9.10

BABCOCK PIPE LIFTER AND HOLDER.

Used by well drillers. It is simple and perfect in its operation, guaranteed not to tear or damage pipe. Handles pipe from 1 to 2 inches inclusive. Approximate wt. 45 lbs.

4-X-2681. Price **$7.35**

MONITOR PIPE HOLDER.

Capacity from 1 to 2 inches. Simple in construction and easily operated. The dog is chill hardened and will not wear. Grips the pipe perfectly and guaranteed not to slip. 4-X-2683. Price each **$5.60**

LITTLE GIANT PIPE HOLDER.

A new device for holding pipe. Will hold pipe sizes 1, 1¼ and 2 inches. Dog has corrugated chilled surface, making it impossible for the pipe to slip. Strongly made and well finished. A thoroughly practical and satisfactory tool.

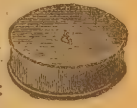
4-X-2685. Price **$3.00**

FLOAT VALVES.

5-X-2687. **Reversible float outlet valves for automatically controlling the flow of water** in reservoirs, stock tanks, cisterns, etc., and is equally effective under high or low pressure. Valve opens with flow instead of against it. Valve will not stick and is not injured by freezing. By reversing the lever a perfect outlet valve is obtained.

Size, inches	¾	1	1¼
Price, each	$1.30	$1.40	$1.50

TANK FLOATS.



To be used in connection With Float Valves. Stem being attached to valve lever to open and close automatically.

5-X-2689. Copper Floats. Size, inches 9½ x 2¾. Price each **$1.87**

5-X-2691. Galvanized Tank Floats. Size, in. 10x2¾. Price each **$1.05**

MURDOCK LAWN HYDRANTS.

4-X-2693. **The body of this Hydrant is ornamental and anti-freezing.** When shut off, the valve at the bottom drains the body of the Hydrant. This valve can be removed from the top and be repaired without taking up the hydrant.

The top of these Hydrants are well constructed and nicely finished. All parts are made from the very best material and each hydrant is fully guaranteed.

Size, inches	¾	¾	1	1
To set in ground feet	3	4	3	4
Price	$10.00	$11.00	$15.00	$16.50

Attractive Edgewater Design Lock Sets

ANTIQUE COPPER LEMON BRASS.
Set **$9.00**

Genuine wrought bronze. A very popular pattern.

CYLINDER FRONT DOOR-LOCK SETS

The Best Cylinder Lock Manufactured

5-pin tumbler cylinder, non-pickable. Lock size 5½x4 inches. 2¾-inch knobs. ⅝-inch swivel spindle. 3 German silver keys. Outside escutcheon 3x9½ inches; inside escutcheon 2¾x7½ inches. Cylinder, bolts, strike, escutcheons and all trimmings are genuine wrought bronze. Reversible for right or left hand doors, 1⅜ to 2¼ inches thick. Complete with screws to match.

4-X-3001. Antique copper finish, polished.
Price, per set..... **$9.00**

4-X-3003. Lemon brass finish. Price per set.... **$9.00**

ANTIQUE COPPER LEMON BRASS.
Set **$2.00**

A Real Beauty and a Very Popular Inside Door Lock Set.

Size of lock 3¾x8¼ inches. Escutcheons 2¾x7¾ inches. 2¾-inch knobs. Nickel plated steel key. Escutcheons, knobs, bolts, strike and trimmings are all genuine wrought bronze. Reversible for right or left hand doors. Complete with screws.

4-X-3009. Antique copper finish, polished. Per set. **$2.00**

4-X-3011. Lemon brass finish. Per set.. **$2.00**

WROUGHT STEEL INSIDE LOCK SETS

As described above, except furnished with bronze plated wrought steel knobs, escutcheons and trimmings.

4-X-3010. Antique copper finish, polished. Price per set **90c**

4-X-3012. Lemon brass finish. Per set..... **90c**

PUSH PLATES

Wrought bronze metal with screws to match. Size 8 x9½ inches.

4-X-3021. Antique copper finish, pol.
Each .. **$1.00**

4-X-3023. Lemon brass finish.
Each **$1.00**

DOOR BELLS

Bronze metal 1⅝ x 4 inches. 3½ inch nickel plated bell, metal gong.

4-X-3025. Antique copper finish, pol.
Price .. **$1.00**

4-X-3027. Lemon brass finish.
Price .. **$1.00**

ANTIQUE COPPER LEMON BRASS.
Set **$3.45**

SLIDING DOOR LOCK SETS

Size of lock 4½x8½ inches. Escutcheons 7½x2¾ inches. Escutcheons and all trimmings are genuine wrought bronze. Single door sets have two flush cup escutcheons; double door sets have four. For flat front doors only. Complete with screws to match.

4-X-3013. Antique copper finish, polished. For single doors.
Price per set..... **$3.45**

4-X-3015. For double doors.
Price per set..... **$4.50**

4-X-3017. Old or lemon brass finish. For single doors.
Price per set..... **$3.45**

4-X-3019. For double doors.
Price per set..... **$4.50**

ANTIQUE COPPER LEMON BRASS.
Set **$3.80**

FRONT DOOR LOCK SETS

Size of lock, 4¾x3¾ inches. Two nickel-plated steel night keys and 1 lock key. Outside escutcheon, 3x9½ inches; inside escutcheon, 2½x7 inches. 2½-inch knobs. ⅝-inch swivel spindle. Escutcheons, knobs, bolts, strike and all trimmings are genuine wrought bronze. Reversible for right or left hand doors. Complete with screws to match.

4-X-3005. Antique copper finish, polished.
Price per set..... **$3.80**

4-X-3007. Lemon brass finish. Per set..... **$3.80**

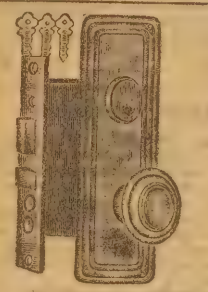
WROUGHT STEEL FRONT DOOR LOCK SETS

As described above, except furnished with bronze plated wrought steel knobs, escutcheons and trimmings.

4-X-3006. Antique copper finish, polished.
Price per set..... **$2.05**

4-X-3008. Lemon brass finish. Per set..... **$2.05**

Popular Colonial Design Lock Sets



ANTIQUE COPPER LEMON BRASS.
Set **$9.00**

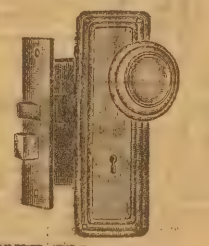
A very pleasing pattern which has proved to be our largest seller, being often specified in connection with our highest priced house designs.

CYLINDER FRONT DOOR LOCK SETS

Heavy beaded edges, finely finished. Five-pin tumbler cylinder, non-pickable. Lock size, 5½x4 inches. 2¾-inch knobs. ⅝-inch swivel spindle. Three German silver keys. Outside escutcheon, 2¾x9¼ inches; inside escutcheon, 2½x7 inches. Cylinder, bolts, strike, escutcheons, knobs and all trimmings are genuine wrought bronze. Reversible for right or left hand doors, 1⅜ to 2¼ inches thick, with screws to match.

4-X-3029. Antique copper finish, polished.
Price per set..... **$9.00**

4-X-3031. Lemon brass finish.
Price per set..... **$9.00**



ANTIQUE COPPER LEMON BRASS.
Set **$2.00**

GENUINE BRONZE INSIDE DOOR LOCK SETS

A very pleasing design. Size of lock, 3¾x3¼ inches. Escutcheons, 2½x7 inches. Nickel plated steel key. Escutcheons, knobs, bolts, strike and all trimmings are of genuine wrought bronze. Reversible for right or left hand doors. Complete with screws.

4-X-3041. Antique copper finish, polished.
Price per set..... **$2.00**

4-X-3043. Lemon brass finish.
Price per set..... **$2.00**

WROUGHT STEEL INSIDE DOOR LOCK SETS

As above described except are furnished with bronze plated wrought steel knobs, escutcheons and trimmings.

4-X-3045. Antique copper finish, polished.
Price per set..... **90c**

4-X-3047. Lemon brass finish. Set..... **90c**

PUSH PLATES

Bronze metal with screws to match. Size 9¼x 2¾ inches.

4-X-3065. Antique copper finish, polished.
Price
Each .. **$1.00**

4-X-3067. Lemon brass finish.
Each **$1.00**

DOOR BELLS

Bronze metal plate. 1⅝ x 3½ inches. 3½ inch nickel-plated bell metal gong.

4-X-3069. Antique copper finish, polished.
Price **$1.00**

4-X-3071. Lemon brass finish.
Price each .. **$1.00**

ANTIQUE COPPER LEMON BRASS. Set.. **$3.45**

SLIDING DOOR LOCK SETS

Size of lock, 4½x8½ inches. Escutcheons, 7x2½ inches. Escutcheons and all trimmings are genuine wrought bronze. Single door sets have two flush cup escutcheons; double door sets have four. For flat front doors only. Complete with screws.

4-X-3049. Antique copper finish, polished. For single doors. Per set **$3.45**

4-X-3051. For double doors.
Price per set..... **$4.50**

4-X-3053. Lemon brass finish. Single doors. Set.. **$3.45**

4-X-3055. For double doors.
Price per set..... **$4.50**

As above described except are furnished with bronze plated wrought steel escutcheons, bolts and trimmings.

4-X-3057. Antique copper finish, polished. Single doors. Per set..... **$2.40**

4-X-3059. For double doors.
Price per set..... **$3.45**

4-X-3061. Lemon brass finish. Single doors. Set.. **$2.40**

4-X-3063. For double doors.
Price per set..... **$3.45**

ANTIQUE COPPER LEMON BRASS.
Set **$3.80**

FRONT DOOR LOCK SETS

An ornament to any door. Size of lock, 4¾x3¾ inches. Two nickel-plated steel night keys and 1 lock key. Outside escutcheon, 3x9½ inches; inside escutcheon, 2½x7 inches. 2¼-inch knobs. ⅝-inch swivel spindle. Knobs, bolts, strike and all trimmings are genuine wrought bronze. Reversible for right or left hand doors. Complete with screws to match.

4-X-3063. Antique copper finish, polished.
Price per set..... **$3.80**

4-X-3065. Old or lemon brass finish. Per set..... **$3.80**

WROUGHT STEEL FRONT DOOR LOCK SETS

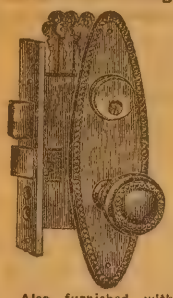
As above described, except are furnished with bronze plated wrought steel knobs, escutcheons and trimmings.

4-X-3037. Antique copper finish, polished.
Price per set..... **$2.10**

4-X-3039. Old or lemon brass finish. Set..... **$2.10**

BEST FINISHES — WARRANTED GRADES — SELECT DESIGNS

Wilmette Design Lock Sets



$8.95 Set

CYLINDER FRONT DOOR LOCK

4-X-3201. Antique copper finish, polished. Price per set **$8.95**

4-X-3203. Old or lemon brass finish. Price, per set $8.95

BIT-KEYED FRONT DOOR LOCK

Also furnished with key to operate both bolts.

4-X-3205. Genuine bronze antique copper finish, polished. Price, per set **$3.80**

4-X-3207. Genuine bronze, old or lemon brass finish $3.80

4-X-3209. Wrought steel, antique copper finish, polished $2.00

4-X-3211. Wrought steel, old or lemon brass finish $2.00

INSIDE DOOR LOCK

4-X-3213. Genuine bronze, antique copper finish **$2.05**

4-X-3215. Genuine bronze, old or lemon brass finish. Price, per set..$2.05

4-X-3217. Wrought steel, antique finish, polished. Price per set.....90c

4-X-3219. Wrought steel, old or lemon, brass finish. Price per set...90c

SLIDING DOOR LOCKS. GENUINE BRONZE

4-X-3221. Antique copper finish. For single doors. Price, per set **$3.45**

4-X-3222. Antique copper finish. For double doors. Price, per set.....$4.85

4-X-3225. Old or lemon brass finish. For single doors. Price, per set...$3.45

4-X-3227. Old or lemon brass finish. For double doors. Price, per set..$4.85

SLIDING DOOR LOCKS WROUGHT STEEL

4-X-3229. Antique copper finish. For single doors. Price, per set **$2.40**

4-X-3231. For double doors. Price, per set.....$3.45

4-X-3233. Old or lemon brass finish. For single doors. Price, per set..$2.40

4-X-3235. For double doors. Price, per set.....$3.45

BRONZE METAL PUSH PLATES

4-X-3237. Antique copper finish, polished. Price, each **$1.00**

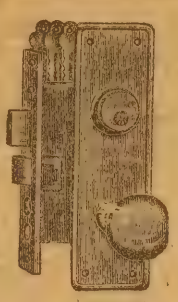
4-X-3239. Old or lemon brass finish. Price, each.....$1.00

BRONZE METAL DOOR BELLS

4-X-3241. Antique copper finish, polished. Price, each **$1.00**

4-X-3243. Old or lemon brass finish. Price, each.....$1.00

Argyle Design Lock Sets



$8.55 Set

CYLINDER FRONT DOOR LOCK

4-X-3301. Antique copper finish, polished. Price, per set **$8.55**

4-X-3303. Old or lemon brass finish. Price per set $8.55

BIT-KEYED FRONT DOOR LOCK

Also furnished with one key to operate both bolts.

4-X-3305. Genuine bronze, antique copper finish, polished. Price, per set **$3.80**

4-X-3307. Genuine bronze, old or lemon brass finish.....$3.80

4-X-3309. Wrought steel, antique copper finish, polished.....$2.00

4-X-3311. Wrought steel, old or lemon brass finish.....$2.00

INSIDE DOOR LOCK

4-X-3313. Genuine bronze, antique copper finish, polished **$2.00**

4-X-3315. Genuine bronze, old or lemon brass finish. Price, per set.. $2.00

4-X-3317. Wrought steel, antique copper finish, polished. Price, per set.90c

4-X-3319 Wrought steel, old or lemon brass finish. Price, per set..90c

SLIDING DOOR LOCKS GENUINE BRONZE

4-X-3321. Antique copper finish, polished. For single doors, Price, per set **$3.30**

4-X-3323. Antique copper finish. For double doors. Price, set.....$4.30

4-X-3325. Old or lemon brass finish. For single doors. Price, per set $3.30

4-X-3327. Old or lemon brass finish. For double doors. Price, per set $4.30

SLIDING DOOR LOCKS WROUGHT STEEL

4-X-3329. Antique copper finish, polished. For single doors. **$2.00**

4-X-3331. For double doors. Price, per set $3.10

4-X-3333. Old or lemon, brass finish. For single doors. Price, per set...$2.00

4-X-3335. For double doors, Price, per set $3.10

BRONZE METAL PUSH PLATE

4-X-3337. Antique copper finish, polished. Price, each.. **$1.00**

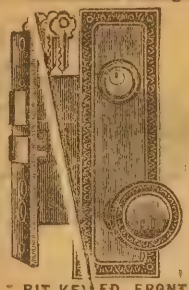
4-X-3339. Old or lemon brass finish. Price, each.....$1.00

BRONZE METAL DOOR BELLS

4-X-3341. Antique copper finish, polished. Price, each.. **$1.00**

4-X-3343. Old or lemon brass finish. Price, each $1.00

Evanston Design Lock Sets



$8.95 Set

CYLINDER FRONT DOOR LOCK

4-X-3101. Antique copper finish, polished. Price, per set **$8.95**

4-X-3103. Old or lemon brass finish. Price, per set $8.95

BIT-KEYED FRONT DOOR LOCK

Also furnished with one key to operate both bolts.

4-X-3105. Genuine bronze, antique copper finish, polished. Price, per set..... **$3.80**

4-X-3107. Genuine bronze, old or lemon brass finish.....$3.80

4-X-3109. Wrought steel, antique copper finish, polished.....$2.00

4-X-3111. Wrought steel, old or lemon brass finish.....$2.00

INSIDE DOOR LOCK

4-X-3113. Genuine bronze, antique copper finish, polished. Price, per set..... **$2.10**

4-X-3115. Genuine bronze, old or lemon brass finish. Price per set..$2.10

4-X-3117. Wrought steel, antique copper finish, polished. Price per set 90c

4-X-3119. Wrought steel, old or lemon brass finish. Price, per set 90c

SLIDING DOOR LOCKS GENUINE BRONZE

4-X-3121. Antique copper finish, polished, **$3.45** For single doors.....

4-X-3123. Antique copper finish. For double doors.....$4.85

4-X-3125. Old or lemon brass finish. For single doors.....$3.45

4-X-3127. Old or lemon brass finish. For double doors.....$4.85

SLIDING DOOR LOCKS WROUGHT STEEL

4-X-3129. Antique copper finish, polished. For single doors..... **$2.40**

4-X-3131. For double door. Price per set $3.45

4-X-3133. Old or lemon brass finish. For single doors.....$2.40

4-X-3135. For double doors....$3.45

BRONZE METAL PUSH PLATES

4-X-3137. Antique copper finish, polished. Price, each **$1.00**

4-X-3139. Old or lemon brass finish. Price, each.....$1.00

BRONZE METAL DOOR BELLS

4-X-3141. Antique copper finish, polished. Price, each **$1.00**

4-X-3143. Old or lemon brass finish. Price, each.....$1.00

Oak Park Design Lock Sets

$8.95 Set

CYLINDER FRONT DOOR LOCK

4-X-3245. Antique copper finish, polished. Price. per set **$8.95**

4-X-3247. Old or lemon, brass finish. Price, per set $8.95

BIT-KEYED FRONT DOOR LOCK

Also furnished with one key to operate both bolts.

4-X-3249. Genuine bronze, antique copper finish, polished. Price, per set **$3.80**

4-X-3251. Genuine bronze, old or lemon brass finish.....$3.80

4-X-3253. Wrought steel, antique copper finish, polished.....$2.00

4-X-3255. Wrought steel, old or lemon brass finish.....$2.00

INSIDE DOOR LOCK

4-X-3257. Genuine bronze, antique copper finish, polished. Price, per set **$2.10**

4-X-3259. Genuine bronze, old or lemon, brass finish. Price, per set..$2.10

4-X-3261. Wrought steel, antique copper finish, polished. Price, per set.90c

4-X-3263. Wrought steel, old or lemon, brass finish. Price, per set...90c

SLIDING DOOR LOCKS GENUINE BRONZE

4-X-3265. Antique copper finish, polished. For single doors..... **$3.45**

4-X-3267. Antique copper finish. For double doors.....$4.85

4-X-3269. Old or lemon brass finish. For single doors.....$3.45

4-X-3271. Old or lemon brass finish. For double doors.....$4.85

SLIDING DOOR LOCKS WROUGHT STEEL

4-X-3273. Antique copper finish, polished. For single doors..... **$2.40**

4-X-3275. For double doors. Price, per set $3.45

4-X-3277. Old or lemon brass finish. For single doors.....$2.40

4-X-3279. For double doors....$3.45

BRONZE METAL PUSH PLATES

4-X-3281. Antique copper finish, polished. Price, each **$1.00**

4-X-3283. Old or lemon brass finish. Price, each.....$1.00

BRONZE METAL DOOR BELLS

4-X-3285. Antique copper finish, polished. Price, each **$1.00**

4-X-3287. Old or lemon, brass finish. Price, each.....$1.00

GENUINE WROUGHT BRONZE CYLINDER STORE DOOR LOCK AND HANDLE

4-X-3363. Antique copper finish. Size of lock 5x3½ inches, 5-pin tumbler cylinder, non-pickable. Size of plates 3x12 inches. 2 handles, one for either side of door. 3 German silver keys. **Complete with screws to match.** Price, per set.. **$9.00**

SPLENDID VALUE LOCK SET

Austin Design

Best moderate price lock set front door lock, size 4¾x3¼ in. Outside escutcheon 2¼x8 in. Reversible for right or left hand door. **$1.95**

4-X-3345. Set..

Austin Design Inside Lock

4-X-3357. Per set..... **65c**

GENUINE WROUGHT BRONZE CYLINDER STORE DOOR LOCK AND HANDLE

4-X-3355. Antique copper finish. Size of lock 5x3½ inches. 5-pin, tumbler cylinder, non-pickable. Size of plates 3x12 inches. 2 bar handle grips, one for either side of door, 3 German silver keys. Reversible for right or left hand door. **Complete with screws to match.** Price, per set..... **$9.40**

WROUGHT STEEL ELECTRO BRONZE PLATED STORE DOOR HANDLE AND LOCK SETS

4-X-3359. **Antique copper finish.** Size of lock 4¾x3¼ inches. Size of plates 3x12 inches. 2 handles, one for either side of door. 2 nickel plated flat steel keys. Reversible for right or left hand doors. **Complete with screws to match.** Price, per set..... **$2.95**

GENUINE WROUGHT BRONZE PLATED STORE DOOR LOCK SET AND HANDLE

4-X-3361. Same as 4-X-3359 except plates, handles, bolts, strike and trimmings are genuine wrought bronze with screws to match. Price, per set..... **$6.50**

DOOR PUSH PLATES

Size 2¾x9¾ in., finely finished with screws to match.

GENUINE BRONZE METAL

4-X-3583. Antique copper finish. Each..... **65c**

4-X-3584. Old or lemon brass finish. Each..... **65c**

WROUGHT STEEL PLATED

4-X-3585. Antique copper finish. Each..... **20c**

4-X-3586. Old or lemon brass finish. Each..... **20c**

WROUGHT STEEL ELECTRO BRONZE PLATED STORE DOOR HANDLE AND LOCK SET

4-X-3357. **Antique copper finish.** Size of lock, 4¾x3¼ inches. Size of plates 3x12 inches. 2 bar handle grips, one for either side of door. Two nickel plated flat steel keys. Reversible for right or left hand doors. Complete with screws to match. Price, per set..... **$2.95**

GENUINE WROUGHT BRONZE STORE DOOR LOCK AND HANDLE

4-X-3353. Same as above described except that plates, grips, strike, bolts and trimmings are genuine bronze metal. Complete with screws to match. Price, per set..... **$6.50**

Sash Cord, Weights, Bolts Balances, Pulleys and Cabinet Hardware

BUILDERS' HARDWARE

Comparison Will Show the Extent of Your Savings in Our Prices

SASH CORD

Made of special selected long fiber cotton firmly braided. The strongest and most durable manufactured. Put up in bundles of 100 feet.

Per bundle

4-X-3647. No. 8, 8/32 in. diam.....**$2.40**
4-X-3645. No. 7, 7/32 in. diam..... **2.45**

SASH WEIGHTS

10-X-3643. Four weights are required to hand each window. Weights range from 3 to 9 pounds by half pounds. Heavier than 9 pounds graduate by pounds. Per lb...4c

WROUGHT STEEL DRAWER PULLS

Wrought steel electro plated with screws to match. Length 3⅝ inches.

4-X-3623. Antique Copper, polished finish. Each 3c

4-X-3625. Old or Lemon Brass finish. Each 3c

BRASS DRAWER HANDLES AND KEYHOLE ESCUTCHEONS

Stamped Brass
4-X-3845. Drawer handle bolts, 3 inches from center to center. Each. **10c**

Stamped Brass
4-X-3841. Keyhole escutcheon complete with Pins. Nicely finished. Doz... **30c**

Cast Brass
4-X-3840. Complete with Pins. Per six .. **30c**

CUPBOARD LOCKS

4-X-3835. Two Secure Levers. For right or left hand door. Wide Bolt. Width 1¾ in., length, 3 in. **With one Fancy Bow Key.** Each.....49c

CUPBOARD CATCHES

Electro Plated, Polished Wrought Steel with screws to match.
4-X-3591. Antique Copper finish. Each.10c
4-X-3592. Old or Lemon Brass finish. Each 10c

SPRING SASH BALANCES

4-X-3637. Used instead of sash weights and cord. Easy to apply and do not require box frames. Springs are made of special tempered steel, heavily coppered to prevent rust. **Warranted to retain their full strength.** Set consists of four balances, two each for top and bottom sash.

Size No.	Weight of each Sash	Height of each Sash	Wt. Per Set of 4 Balances	Price Per Set of 4 Balances
6	4 to 6 lbs.	34 in.	6 lbs.	$2.25
8	6 to 8 lbs.	34 in.	6 lbs.	2.45
10	8 to 10 lbs.	34 in.	7 lbs.	2.70
12	10 to 12 lbs.	44 in.	7 lbs.	2.95
14	12 to 14 lbs.	44 in.	7½ lbs.	3.15
16	14 to 16 lbs.	44 in.	7½ lbs.	3.35
18	16 to 18 lbs.	48 in.	9½ lbs.	3.60
20	18 to 20 lbs.	48 in.	10 lbs.	3.85

HANGERS AND FASTENERS

Illustration shows Storm Sash with **Hanger,** ready to hang. Works like a hinge, one on each corner at top. **Simplest** contrivance ever devised. Hangers and Fasteners made of **malleable iron.**

Adjustable Fastener—Sash swung out, when closed the extension bar **turns in** and **lies flat** against bottom rail of sash, forming a **perfect lock,** prevents **rattling** and holds sash **tight.**

4-X-2000. Hangers and Fasteners, with screws complete, per set..... **43c**
4-X-2005. Hangers only, with screws per pair..... **20c**
4-X-2012. Fasteners only, with screws, per pair..... **25c**

CAST BRASS KNOBS

4-X-3842. Black Enameled Handles. Brass plate, nicely finished. Per four..... **45c**

4-X-3844. Finely Finished 1½ inches in diameter. Per four..... **40c**

WINDOW SETS FOR BASEMENT, DORMER AND ATTIC WINDOWS

A great time saver. For carpenters and builders. Hinged to swing. Strong and durable. Presses the sash tightly into the frame, excludes the cold and prevents rattling.

4-X-3619. For sash hinged at side. Set consists of one pair 2½ inch wrought steel butts, one japanned steeled sash fastener. **Packed in box complete with screws.** Per set **23c**

4-X-3621. For sash hinged at top. Set consists of one pair 2½ inch wrought steel butts, one japanned steeled sash fastener, one hook and eye. **Packed in box complete with screws.** Per set..... **25c**

STEEL SASH PULLEY

4-X-3649. Electrically welded and cannot break. Require no screws. Simply bore three holes and drive the pulley in. Diameter of wheel 2 inches. Per dozen..... **62c**

WITHOUT SCREWS

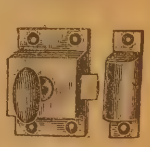
CHEST HANDLES
4-X-3830. **Japanned Iron Chest Handles.** Size, 4 in., **without screws.** Per pair.. **27c**

DOOR BUTTONS
4-X-3655. **Japanned finish.** Length 1½ inches. Per doz. **9c**
Length, 2 in. Per doz. .. **11c**

CUPBOARD CATCHES
4-X-3609. **Iron japanned finish.** Each ... **5c**

CUPBOARD TURNS

Electro Plated, Polished Wrought Steel



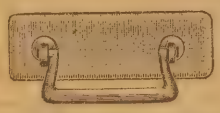
4-X-3596. Antique Copper, polished finish. Each **16c**
4-X-3597. Old or Lemon Brass finish. Each **16c**

GENUINE WROUGHT BRONZE CUPBOARD TURNS

With Screws to Match

4-X-3598. Antique Copper finish. Each **48c**
4-X-3599. Old or Lemon Brass finish. Each **48c**

CABINET AND CUPBOARD HARDWARE



CONCORD DROP HANDLE

A neat and simple de- A neat and simply designed handle; suitable for buffets, sideboards and china closets. Unusually well made and nicely finished.

4-X-15016. **Antique Copper.** Price each **39c**
4-X-15017. **Lemon Brass.** Price each **39c**

4-X-3834 CYLINDER STEEL DRAWER LOCK

Brass Cylinder, strong and secure. For wood ⅞ inch thick. Width, 1¾ inch, with **2 Nickel Plated Flat Steel Keys.** Each **39c**

4-X-3833 SELF-LOCKING CHEST LOCKS

All Iron with Brass Keyhole Escutcheon. Double bitted keys. Width, 2½ inches. Each **78c**

4-X-3831 DRAWER LOCKS

2¼ in. wide. Has two secure levers for wood ⅞ in. thick. **One key.** Each **44c**
4-X-3832. Brass Drawer Locks. Same as above. Each **45c**

CAST IRON DRAWER PULL

A very popular drawer pull owing to the fact that it is applied with machine screws through the wood from the inside, making it stationary. Is suitable for drawers, buffets, bookcases, china cases, etc.

4-X-15018. Antique Copper. Price each **18c**
4-X-15019. Lemon Brass. Price each **18c**

Superior Grades in Dependable Hardware at Substantial Savings

REAL ECONOMY PRICES

Barn Door Hinges, Tracks Bolts, Pull Latches, etc. Stair Rail Hardware

4-X-3925. Heavy polished Wire Hooks and Eyes.

Inches	2	3	4
Each	2c	2½c	3c
Doz.	22c	27c	33c

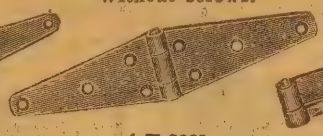
4-X-3923. Wrought Hooks and Staples.
Length, 4 in. ea. 5c
Price, per doz. 48c
Length 6 in., ea. 6c
Per dozen..... 65c

Hinges Wrought Steel, Standard Size, Strictly First Quality

Size given is measurement from joint to end of hinge. Without screws.

4-X-3929
Light wrought steel strap hinges. Size given is length from joint to end of hinge.

Size, Inches	3	4	5	6
Takes Screw No.	6	7	8	9
Per Pair	9c	12c	15c	18c



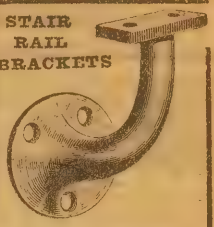
4-X-3931
Heavy wrought steel strap hinges. Size given is length from joint to end of hinge.

Inch	Screw	Pr. Pair
6	10	$0.23
8	12	.34
10	12	.49
12	14	.72
14	16	.88

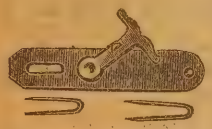
4-X-3933
Wrought steel screw strap hinges. Each pair requires two ⅜-inch and four ⅛-inch bolts to put them on. **Bolts are not included at prices quoted.**

Size, inches	10	12	14
Per Pair	42c	49c	56c

STAIR RAIL BRACKETS



Projects two inches from wall to center of rail. These brackets are used to support hand railing.
4-X-15022. Coppered bronze finish. Each 15c

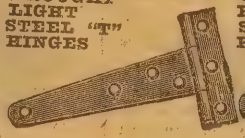


Heavy wrought steel hasp with double hook and staples.
4-X-3913

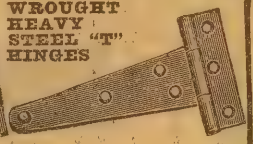
Length, In.	6	8	10
Each	6c	9c	11c

YANKEE DOOR CATCH
4-X-3915. For holding open swinging doors. Made of cast iron, japanned.
Each 11c

WROUGHT LIGHT STEEL "T" HINGES



WROUGHT HEAVY STEEL "T" HINGES



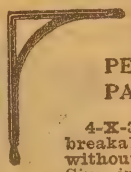
4-X-3927

Inches	3	4
Per pair	9c	12c
Inches	6	8
Per pair	15c	18c

4-X-3909

Size	6	8	10
Pair	28c	43c	62c
Size	12		
Pair	86c		

PRESSED STEEL BRACKET



PER PAIR, **12c**

4-X-3451. Strong and unbreakable Japanned finished without screws.

Size in	4x5	6x8	7x9
Per pair	12c	18c	22c
Size in	8x10	10x12	12x14
Per pair	26c	34c	49c

DOUBLE PIVOTED GATE
4-X-3937. A strong, practical japanned steel gate hanger. Weight of gate hangs on center at its strongest point. Can be easily raised to clear snow or other obstacles. Is fastened to post with two lag screws. **Price, including lag screws** 95c

4-X-3939
Security Combination Hook and Hasp. Wrought Steel.
Length, 8 inches. Each.. 11c

Heavy Wrought Steel Hinge
4-X-3935

Length, In.	3	6	8	10
Each	12c	17c	22c	24c

BARN DOOR BOLT 4-X-3907

Heavy Pattern suitable for stables and out-houses. Length, 8 inches.
Price, each..... 39c

BARN DOOR PULLS
4-X-3963
Extra heavy cast iron.
Each 6c

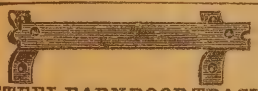
STEEL CENTER BRACKET
4-X-3905. Steel Center Brackets for track 4-X-3903, Japanned Finish, complete with lag screws for attaching. Price each..... 18c

BARN DOOR LATCH
4-X-3951. Automatic sliding or swinging door latch with attachment for lock. Strong and durable. The latch can be thrown back, leaving the edge of door clear; has inside latch and pull. Each..... 35c

BARN DOOR STAY ROLLERS

Reversible and Adjustable

4-X-3911. Reversible for inside and outside doors. Adjustable for any thickness of door. Diameter of wheel, 2 inches. Price, each, 17c



STEEL BARN DOOR TRACK
4-X-3947. Strong and rigid. Suitable for any ordinary door. Size, 3/16x1 inch. Lengths, 4, 6, 8, and 10 feet. Per foot..... 7c

EXTRA HEAVY TRACK
4-X-3949. For use with hinge joint or other styles of barn door hangers. Made of steel, size, 1¼x3/16-inch. Come in lengths, 4, 6, 8, and 10 feet.
Price, per foot, 10½c

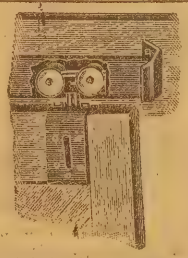
HINGE JOINT BARN DOOR HANGERS

Hinge joint makes it possible to swing the door in or out. Provided with a guard, making it impossible to jump the track. Has chilled roller bearings. Wheel, axles and bearings are fully protected from the weather.
4-X-3921. Price, per pair 70c

BARN DOOR HANGERS

LOOSE AXLE ANTI-FRICTION HANGERS
Guaranteed not to bind or jump the track. Wheels are mounted on hardened steel axles. **Our prices do not include bolts.**
4-X-3941. For doors 6 foot run. Diameter of wheel 3 inches. Require ⅛-in. bolts.
Per pair..... $1.20
4-X-3943. For doors 8 foot run. Diameter of wheel, 3 inches. Require inch bolts.
Per pair..... $1.40
4-X-3945. For doors 10 foot run. For large heavy doors. Diameter of wheel, 5 inches. Require ⅜-inch bolts.
Per pair..... $1.90

ANTI-FRICTION ROLLER BEARING BARN DOOR HANGERS
Made entirely of steel except the wheel. The axle is of hardened steel. Prices do not include bolts.
4-X-3917. Size of wheel, 3½ inch. For small and medium size doors.
Per pair 95c
4-X-3919. Size of wheel, 4 inch. Suitable for the largest size doors.
Per pair..... $1.15



ROLLER BEARING TROLLEY HANGERS
Wheels run inside of hollow steel track. Can not bind or jump the track. Suitable for doors 1½ to 2¼ inches thick. A set consists of two hangers, two end brackets and one center bracket. **Complete with screws and bolts.**
4-X-3901. Price per set, complete, without track $1.90
4-X-3903. Trolley track for above hangers, brackets not included. Lengths, 4, 5, 6, 8 and 10 feet.
Price, per foot..... 22c

GATE HINGE
4-X-3953.

Will swing both ways. Does not require spring or weight. Wrought upper hinge, cast lower hinge. Japanned Finish. Per set..... 86c

GRAVITY GATE LATCH

4-X-3959.
Overcomes shrinking and sagging of gate posts. Made of steel and malleable iron. Easily applied. Price, each 23c
4-X-3957. For right or left hand gates. Also gates that swing both ways. Adjustable to meet any sag in the gate.

Each 12c

TINNED SAFETY GATE HOOKS AND STAPLES

4-X-3961.
Length 4, 6, in. Each. 13c-18c

DOOR BUTTS, LATCHES, LOCKS, BOLTS, BASE KNOBS, HINGES, FASTENERS, ETC.

BUILDERS' HARDWARE

SUPERIOR GRADES FOR DOORS, BEST FINISH AND CONSTRUCTION, LOWEST PRICES

NARROW FAST PIN WROUGHT STEEL BUTTS

4-X-3579. Plain without screws.

Inch	1½	2	2½	3
Doz. pairs	54c	75c	92c	$1.20

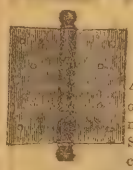
ELECTRO PLATED POLISHED TRANSOM BUTTS

Heavy wrought steel, fast pin, finely finished, with screws to match.

4-X-3581. Antique Copper Finish.

Inch	2½x2½	3x3	3½x3½
Per pair	26c	33c	38c

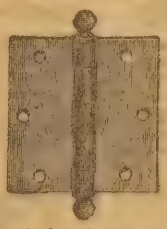
JAPANNED LOOSE PIN BALL TIPPED STEEL BUTTS



4-X-3577. Made of heavy steel, nicely japanned. Screws not included.

Inch	2½x2½	3x3	3½x3½
Per pair	25c	27c	29c
Inch	4x4	4½x4½	5x5
Per pair	36c	50c	68c

HIGH GRADE ELECTRO PLATED POLISHED WROUGHT STEEL BALL TIPPED BUTTS



Guaranteed to be the best finished wrought steel butts manufactured. Heavy, highly polished and finely finished. Furnished with screws to match.

4-X-3501. Antique copper polished finish.

Inch	2x2	2½x2½	3x3	3½x3½	4x4	4½x4½	5x5
Per pair	78c	83c	87c	98c	$1.05	$1.35	$1.62

4-X-3503. Old or Lemon Brass Finish.

Inch	2x2	2½x2½	3x3	3½x3½	4x4	4½x4½	5x5
Per pair	73c	83c	87c	98c	$1.05	$1.35	$1.62

ELECTRO PLATED PLANISHED BALL TIPPED BUTTS

Electro Plated Planished. Made of the same grade steel and generally sold as a polished butt. In every sense equal to the high grade butts, except not as finely finished. Furnished with screws to match.

4x3505. Antique Copper Finish.

Inch	2x2	2½x2½	3x3	3½x3½	4x4	4½x4½
Per pair	39c	42c	44c	48c	57c	83c

PLANISHED WROUGHT STEEL BUTTS

4x3507. Old or Lemon Brass Finish.

Inch	2x2	2½x2½	3x3	3½x3½	4x4	4½x4½
Pair	39c	42c	44c	48c	57c	83c

RIM LOCKS

Heavy Japanned Cases. Reversible for right or left hand doors. Packed complete with screws. Each lock fully warranted.

UPRIGHT RIM KNOB LOCK

Size 4x3¼ inches, with stop, iron bolts and tinned malleable key.

4X 3409. Lock only without knob. Each **24c**

4X3411. With brown mineral knob. Per set 45c

4X3413. With jet knob. Per set 45c

UPRIGHT RIM KNOB LOCK

Size 4x3¼ inches, 3 brass plated bolts, nickel plated steel key.

4X3415. Lock only without knob. Each **40c**

4X3417. With brown mineral knob. Per set 62c

4X3419. Black jet knob. Per set 62c

HORIZONTAL RIM KNOB LOCK

Size 3¾x4¼ in. With iron bolts, tinned malleable key.

4X3421. Lock only without knob. Each 24c

4X3423. With brown mineral knob. Per set 45c

4X3425. With jet knob. Per set 45c

HORIZONTAL RIM KNOB LOCKS

Size 3¾x4¼ inches, 3 brass bolts, nickel plated steel key.

4X3427. Lock only without knob. Each **70c**

4X3429. With brown mineral knob. Each 92c

4X3431. With jet knob. Per set 92c

HORIZONTAL RIM KNOB LATCHES

Size 2½x3¾ in. Japanned case, iron bolt and hub, with screws reversible.

4X3443. Latch only without knobs. Each **24c**

4X3445. With brown mineral knobs. Per set 45c

4X3447. With jet knobs. Per set 45c

HORIZONTAL RIM DEAD LOCKS

Size 2x3¾ in. Japanned iron case and escutcheons, iron key. Complete with screws.

4X3433. Lock only without knobs. Each 18c

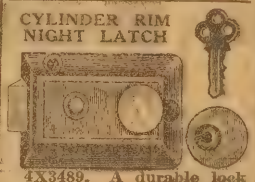
4X3435. With brown mineral knobs. Per set 33c

4X3437. With jet knobs. Per set 40c

STORE DOOR RIM DEAD LOCK

4-X-3439. Strong and durable. Japanned iron case, 5x3½ in. Heavy wrought iron bolt, steel inside bolts, 2 nickel plated, steel folding keys. Complete with Screens. Price 80c.

CYLINDER RIM NIGHT LATCH



4X3489. A durable lock which affords the utmost security. Size 3¾x2½ inches, with genuine bronze metal bolts, cylinder, escutcheon, knob and stop. 3 Yale patent German silver keys, suitable for doors up to 3 inch thick. Price **$1.95**

TUBULAR RIM NIGHT LATCH

4X3449. Japanned iron case, sizes 3½x2½ inches. For doors up to 1¾ inches thick. Japanned case, iron bolts, nickel plated flat steel keys, bronze metal escutcheons, beveled strike with screws reversible. Price **57c**

MORTISE DOOR LATCHES

Japanned iron case, 1¼x3½ inches iron bolts, front and strike.

4X3465. Latch only without knobs. Each 15c

4X3467. With brown mineral knobs. Per set 36c

4X3469. With jet knobs. Per set 38c

Japanned iron cases, 1¼x3½ inches. Brass front, bolt and strike.

4X3471. Latch only without knobs. Each 30c

4X3473. With brown mineral knobs. Per set 52c

4X3475. With jet knobs. Per set 55c

MORTISE DOOR LOCKS

Japanned case, 3⅝x3¾ inches, iron bolts, lacquered front and strike, tinned key. Japanned escutcheon with screws.

4X3453. Locks only without knobs. Each 30c

4X3455. With brown mineral knobs. Each 51c

4X3457. With jet knobs. Each 53c

Japanned case, 3½x3¼ inches. Brass front and bolts, plated strike, nickel plated steel key, japanned escutcheon with screws.

4X3459. Locks only without knobs. Each 70c

4X3461. With brown mineral knobs. Per set 91c

4X3463. With jet knobs. Per set 93c

WEATHER STRIPS

Felt weather strip, made of strong, durable black wool felt, half-inch width for windows; five-eighths inch width for sides and top of door; three-fourths inch for bottoms of doors. Put up fifty feet to a package.

4-X-3719.

Inches	½	⅝	¾
Per ft.	2½c	3c	3½c
Per pkg.	$1.20	$1.40	$1.60

RUBBER STRIPS

Seals cracks around windows and doors; made of the best grade rubber, one-half inch wide for windows, three-fourths inch wide for tops and sides of doors; one inch wide for bottom of doors. Put up in packages containing fifty feet.

4-X-3717.

Inches	½	¾	1
Per ft.	3c	4c	4½c
Per pkg.	$1.35	$1.80	$2.25

CLARK'S GRAVITY BLIND HINGES

4-X-3441. For frame houses. Throws blind 1¼ in. from casing. Set includes four hinges and two fasteners. Flat head screws are to be used with these sets. Per set 17c

CABINET HINGES

For cabinets, china closets, etc. Wrought steel, beautifully finished, strong and durable. Fast pin. Size, 2⅜ x 2 inches. Packed with screws to match.

4-X-3537. Antique copper finish.

4-X-3539. Old or lemon brass finish.

Per pair 23c

THE HARRIS DOUBLE ACTING BALL BEARING FLOOR HINGE

We have overcome the objectionable features of most floor hinges that rest on the surface of the floor, made from heavy wrought steel; the spring from the best oil tempered spring steel; the floor plate from steel. When in practical use, the entire weight of the door is carried on hardened steel ball bearings set in hardened cups.

Lot No. 4-X-3545. Antique copper finish $1.65

Lot No. 4-X-3547. Old or lemon brass finish 1.65

DOOR KNOBS

Rim Knobs — Mortise Knobs

Strictly first quality. Japanned shanks and roses. Knobs 2¼ inches in diameter with 5-16 inch spindles. Price includes one pair knobs, complete with connecting spindle. Mineral knobs are brown mottled; porcelain knobs are white, jet knobs are black.

4-X-3477. Mineral knobs for rim locks. Each **21c**

4-X-3479. Porcelain knobs for rim locks. Each **23c**

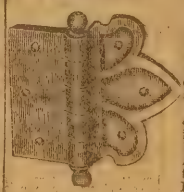
4-X-3481. Jet knobs for rim locks. Each **23c**

4-X-3483. Mineral knobs for mortise locks. Each **21c**

4-X-3485. Porcelain knobs for mortise locks. Each **23c**

4-X-3487. Jet knobs for mortise locks. Each **23c**

ORNAMENTAL ELECTRO PLATED SURFACE BUTTS



Most artistic and the best appearing butt manufactured. Heavy and strongly made, raised design, giving a massive appearance, beautifully finished. Exceedingly popular, economical, and time saving.

They are reversible for right or left hand doors. Size 1½ inch is used largely for Cupboards, Cabinets, Closets, etc. All sizes are loose pin with ball tip. Size given is length of joint. Packed with screws to match.

4-X-3533. Antique copper finish.

4-X-3535. Old or lemon brass finish.

Size, inches	1½	3	3½	4
Price, per pair	23c	32c	57c	75c

HARRIS BROTHERS CO.
35th & Iron Streets, Chicago.

SASH LOCKS, FASTENERS, BOLTS, LATCHES, LIFTS, ETC., TRANSOM TRIMMINGS

QUALITY GUARANTEED

ALL ITEMS ARE THE BEST GRADES PRODUCED TO SELL AT THESE LOW PRICES

METAL BASE KNOBS

Bronze plated. Extra long heavy screws. Heavy rubber tip. Length 2⅝ inches.

4-X-3573. Antique Copper. Each 10c
4-X-3574. Lemon Brass. Each 10c

HARDWOOD BASE KNOBS

Rubber tipped. Well pointed screws. Nicely finished.

4-X-3572. Each 3c

MORTISE DOOR BOLTS

Strong and secure. "T" handle thumb piece. Plates and screws to match.

4-X-3615. Antique Copper. Each 25c
4-X-3617. Lemon Brass. Each 25c

STOP SCREWS AND WASHERS

4-X-3657. Antique Copper. Per doz. 13c
4-X-3659. Lemon Brass. Per doz. 13c

ELECTRO PLATED SWINGING DOOR HOLDERS

A convenient and practical attachment that will hold a swinging door at any angle desired. Particularly suited to swinging restaurant kitchen doors where an attachment is required that may be operated easily with the foot in passing. Spring release. The rubber tipped bolt will not mar or injure carpet.

4-X-3709. Japanned finish 75c
4-X-3711. Antique Copper 80c
4-X-3713. Lemon Brass 80c

CREMORNE BOLTS

For French Windows or Large Casement Sash

Prevents Warping

Cast iron bolt specially adapted for French windows or large casement sash and is furnished with universal strikes. Unless otherwise specified will be furnished with rods for sash up to 8 feet high.

This is the only bolt that will hold the sash in place and prevent warping.

4-X-15000. Antique Copper. Price each $7.25
4-X-15001. Lemon Brass. Price each 7.25

CAST IRON PLATED

4-X-15002. Antique Copper. Price each $4.00
4-X-15003. Lemon Brass. Price each 4.00

SIDE SASH LOCKS

Holds as firm as a vise; prevents rattling of windows. Locks sash securely at any desired height. Convenient for perfect ventilation. Screws to match.

4-X-3607. Antique Copper. Each 15c

STEEL SASH LOCKS

Electro plated. The strongest and most durable sash lock made. Holds sash closely together, prevents rattling. Screws furnished.

4-X-3601. Antique Copper and old or Lemon Brass. Each 10c

SHELF SUPPORTS

Copper plated iron with ¼-in. pins. Weight, about 4 oz.

4-X-3650. Price per dozen 10c

TRANSOM CATCHES

Electro plated wrought steel Bronze metal ring and screws to match. Size, 2¼x1⅝ in.

4-X-3553. Antique Copper. Each 28c
4-X-3555. Lemon Brass finish. Each 28c

ELECTRO PLATED WROUGHT STEEL CHAIN BOLTS

Length, 6 inches, with 2 feet of chain. Screws to match.

4-X-3511. Antique Copper 55c
4-X-3513. Lemon Brass 55c

FOOT BOLTS

Electro plated wrought steel, spring release. Length 6 inches. Screws to match.

4-X-3515. Antique Copper 49c
4-X-3517. Lemon Brass 49c

AUSTIN DESIGN BRONZE PLATED IRON CHAIN AND FOOT BOLTS

Black background; polished raised surface. Length, 6 inches. Chain bolts fitted with 2 feet of copper chain. Screws to match.

4-X-3549. Chain Bolts. Each 42c
4-X-3551. Foot Bolts. Each 36c

REVERSIBLE CASEMENT

Fasteners. Size, 1⅜ x1⅝ inches. Screws to match.

4-X-3587. Antique Copper. Per set 21c
4-X-3588. Lemon Brass. Per set 21c

POLISHED BRONZE METAL

4-X-3589. Antique Copper. Per set 48c
4-X-3590. Lemon Brass. Per set 48c

FLUSH BOLTS

A heavy cast iron plated Flush Bolt, 1 in. wide; furnished in two sizes. For use on Casement Sash or French Windows. Complete with screws.

4-X-15010. 6-inch Flush Bolts. Lemon Brass, each 40c
4-X-15011. 6-inch Flush Bolts. Antique Copper, each 40c

CASEMENT WINDOW FASTENERS

Cast iron plated; either right or left hand. Size of plate, 2½ in. by ⅝ in. Has a double strike for single sash opening in, or pairs of sash opening out.

4-X-15006. Plate Metal, Lemon Brass Finish, each 30c
4-X-15007. Plate Metal, Antique Copper Finish, each 30c

TRANSOM LIFTERS

Used in connection with transoms hinged at top, bottom or pivoted in the middle. By means of this lifter transoms can be opened or locked at any angle, affording ample means of ventilation. Strong and durable.

4-X-3519. Plain Coppered Finish.

Length, feet	3	4	5
Price, each	28c	34c	56c

4-X-3521. Electro Bronze Plated, Antique Copper Finish.

Length, feet	3	4	5
Price each	50c	60c	75c

BARREL BOLTS

4-X-3855. Wrought steel, nicely japanned. Polished steel bolt and brass knob.

Length of bolt, in.	3	4	5	6
Each	9c	11c	12c	13c

Casement Window Adjuster. Made of plated steel rod, ⅜-inch diameter. This adjuster is for sash opening out and will hold the sash at any angle. Two finishes.

4-X-15004. Antique Copper. Price Each 35c
4-X-15005. Lemon Brass. Price Each 35c

HOOK SASH LIFTS

Splendid quality, heavy and high grade. Finely finished and made with bevel edges. Size, 1½ inches. Screws to match.

GENUINE WROUGHT BRONZE METAL

4-X-3523. Antique Copper, polished. Old or Lemon Brass. Each 9c

ELECTRO BRONZE PLATED WROUGHT STEEL

4-X-3527. Antique Copper, Polished. Each 3c
4-X-3529. Lemon Brass Finish. Each 3c

VENTILATING SASH FASTENERS

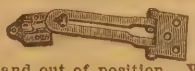
Permits opening of windows at top, bottom or both top and bottom with perfect security against intrusion. Strong and durably made. Easily attached. Electric bronze plated. Screws to match.

4-X-3639. Antique Copper. Each 26c
4-X-3641. Lemon Brass. Each 26c

CONCORD FRENCH WINDOW OR SCREEN DOOR SET

Reversible mortise latch, 1⅜x1¾ inch square hub for ⅜-inch spindle; brass front. Can be set by slide knob, which prevents opening from outside.

4-X-15012. Lemon Brass $1.35
4-X-15013. Antique Copper 1.35



SAFETY DOOR FASTENERS

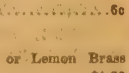
Can be instantly thrown in and out of position. When in position the door can be left opened for the purpose of ventilation without fear of intruders. When thrown out of position the door can be operated without interference of this fastener.

4-X-3493. Malleable Iron, lemon brass. Each 89c
4-X-3497. Solid Bronze, lemon brass. Each 61c

BAR SASH LIFTS

Electro plated wrought steel. Length of handle, 3 inches; length over all, 4 in.

4-X-3559. Lemon Brass. Each 13c
4-X-3557. Antique Copper. Each 13c



FLUSHED SASH LIFTS

Made of wrought steel, bronze plated. Size, 1¼x3¾ inches. Complete with screws.

4-X-3567. Antique Copper. Each 6c
4-X-3569. Lemon Brass. Each 6c

Genuine wrought bronze.

4-X-3570. Antique Copper. Old or Lemon Brass Finish. Per dozen $1.30

GENERAL HARDWARE AT A SAVING

SCREEN DOOR SETS

4 X 3673. Consists of one pair japanned back spring hinges, one steel door pull, one hook and eye, complete with screws. Per set **15c**

SCREEN DOOR CATCHES

4 X 3675. Vienna bronze finish for doors 7/8 to 1 3/8 inches thick. To be used on doors opening outwards. Furnished complete with stop, knobs and screws.

Per set.....23c

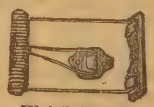
4-X-3677. Electro bronze plated raised surface, dull background. Complete with stop, knobs and screws.

Per set 40c

SCREEN DOOR HINGES

4-X-3679. Hold back spring hinges, the strongest and best manufactured. Japanned case. Screws not furnished

Per pair..... **12c**



WARNER SCREEN DOOR HINGES

4 X 3685. Made of heavy spring steel wire, copper plated.

Each **7c**

BRASS PICTURE CHAINS WITH HOOKS

Length, 36 inches. Can be easily shortened.

4 X 3836. For light picture frames.

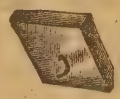
Per pair.....12c

PICTURE NAILS

4 X 3838. White Porcelain head, gilt trim, coppered nails. Heads removable for driving.

Per dozen.....20c

BRIGHT BRAIDED PICTURE WIRE



4 X 3839. Heavily Tinned. Coils guaranteed to contain full 75 feet.

Per coil...12c

BRIGHT WIRE SCREW EYES

4 X 3850. Gimlet Pointed Screws.. Perfectly formed eyes.

Size No.	Length Inches.	Per Dozen
105	2	12c
108	1 5/8	8c
110	1 5/8	7c
112	1 1/2	6c
114	1	5c
214	3/4	5c

PICTURE MOLDING HOOKS

4 W 3848. Brass Plated. Per dozen.7c

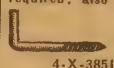
SOLID BRASS PICTURE MOLDING HOOKS

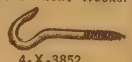
4 X 3849.

Per dozen.....20c

BRIGHT WIRE SCREW HOOKS

Full size, perfectly pointed. In ordering, be sure to state number and length required; also if straight or bent Hooks.





Length, Inch.	4-X-3851. Straight Pattern Doz.	4-X-3852 Bent Pattern Doz.
1 1/4	5c	4c
1 1/2	7c	6c
2	9c	8c
2 1/4	10c	9c
3	15c	14c
3 1/2	35c	30c

PICTURE KNOBS

4 X 3850. White Porcelain Knobs. Round head, gimlet pointed screws.

Per dozen.....20c

SCREW AND CUP HOOKS

Polished Brass, Full Size. Either kind same price. Be sure to state Number and Size required.

4-X-3853. Screw Hooks.
4-X-3854. Cup Hooks.

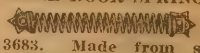
Size, In.	Per Doz.
1/2	14c
5/8	15c
3/4	16c
7/8	17c
1	18c

ORNAMENTAL THUMB LATCHES AND HANDLES

4-X-3633. Bronze finish For doors 7/8 to 1 1/2 inches thick. Complete with screws.

Each.... **16c**

SPIRAL DOOR SPRINGS



4 X 3683. Made from special grade highly tempered steel wire, fastened securely to the bracket and spring holder. Adjustable tension. Length, 10 inches.

Price, each..... **18c**

TORREY'S READY DOOR SPRING

4 X 3681. Steel rod door spring. Furnished with a special wrench with each set for adjusting tension. Length 39 inches.

Each **20c**

ELECTRO PLATED DOOR PULLS

NEAT, STRONG PATTERN

4 X 3687. Wrought steel, antique copper finish. Strong, durable and well made. Will give long and continued service. Length 4 7/8 inches.

Each **2c**

DOUBLE PATTERN COAT, HAT AND UMBRELLA HOOK

4 X 3665. Double pattern. Height, 9 inches. Projects from wall 4 1/2 inches. Spread 10 inches.

Each **45c**

CLOSET AND WARDROBE HOOKS

4-X-3669. Made from heavy copper plated plain steel wire.. Will not rust. Gimlet pointed screws. Length, 3 inches.

Per dozen ... **17c**

COAT AND HAT HOOKS

4 X 3667. Made of copper plated spring steel wire. Gimlet pointed screws. Length, 3 inches

Per dozen.. **12c**

4 X 3674. Japanned Iron, a strong, durable hook with screw end. Quickly and easily put up without the aid of tools. Serviceable and satisfactory.

Per dozen.. **16c**

4 X 3671. Heavy Iron Rooks. Suitable for schools and public coat rooms. Japanned finish. Strong and durable. Length, 3 inches.

Per dozen.. **54c**

4-X-3663. Electro polished antique copper finish. Screws to match. 7-in. high, from wall 4 in. Each.... **25c**

CAST IRON FOOT SCRAPER

Japanned finish.

4-X-3661.

Each..... **7c**

STEEL FOOT SCRAPER

4-X-3635. Strongest, most rigid foot scraper made. Length, 6 inches; height, 2 inches.

Each..... **10c**

BOX OR TRUCK CASTERS

4-X-3801. Heavy Iron Stationary Box or Truck Casters. Strong and substantial. Price does not include screws.

3-in. Wheel. Each.....42c
4-in. Wheel. Each.....58c

SWIVEL IRON BOX OR TRUCK CASTERS

4-X-3803.

3-in. Wheel. Each.....46c
4-in. Wheel. Each.....63c

ROLLER BEARING IRON BOX OR TRUCK CASTERS

For Trucks, Boxes, Chests or any other purpose where a Strong, Heavy Caster is required.

	Size of Wheel	Size of Plate	Per Set of Four
4-X-3805.	1 1/4	1 3/8x2	$0.50
4-X-3806.	1 3/4	1 5/8x2	.63
4-X-3807.	1 5/8	1 7/8x2 3/4	.80
4-X-3808.	2 1/4	2 1/8x3 1/8	1.05
4-X-3809.	2 1/2	3 x4 1/2	2.30
4-X-3810.	3 1/8	3 3/8x4 7/8	3.40

WROUGHT STEEL ELECTRO COPPER PLATED BARREL BOLTS

Complete with screws to match.

4 X 3857. Old or Lemon Brass Finish.

Length, inches	4	5
Each	15c	19c

"FAULTLESS" PHILADELPHIA SHORT STEM STEEL HORN CASTERS

4-X-3815. Faultless Philadelphia Short Stem Steel Horn Casters. 3/8x1 3/8 inch sockets; hard maple wheels.

Size, Wheel, inches	1 1/8	1 1/4	1 3/8
Price, per set	21c	24c	26c
Price, per set	21c	24c	26c

4-X-3816.

Size, Wheel, inches	1 1/8	1 1/4	1 3/8
Price, per set	24c	28c	32c

"FAULTLESS" BED CASTERS

Faultless Bed Casters and Sockets for Iron Beds. Steel horn, maple wheels.

4-X-3817. To Fit Tubing 7/8 in. Outside Diameter.

Size of wheel, 1 1/8 in. Price, per set.....30c

4-X-3818. To Fit Tubing 1 in. Outside Diameter.

Size of wheel, 1 1/4 in. Price, per set.....33c

4-X-3819. To Fit Tubing 1 1/8 in. Outside Diameter.

Size of wheel, 1 3/8 in. Price, per set.....35c

STOVE OR FURNITURE CASTER

Just the thing for putting your stove away in the spring. Heavy stoves could be easily moved around the house with a set of these Casters. They are also heavy enough for use with other furniture of heavy weight. Can be attached to a box or platform.

4-X-3820. Price, per set of 4.....$1.50

BED CASTERS

4 X 3821. Bed Casters, Iron Copper Bronze. 1 5/8 in. in diameter.

Per set of 4.....19c

4 X 3822. Bed Casters. 1 5/8 in. porcelain wheel.

Per set of 4.....20c

4 X 3823. Bed Casters. Applewood wheels. 2 in. in diameter.

Per set of 4.....22c

FURNITURE CASTERS, PHILADELPHIA PATTERN

4 X 3828. Furniture Casters. Philadelphia Pattern. 7/8 in. bronzed iron wheels. Strong and durable.

Per set of 4.....14c

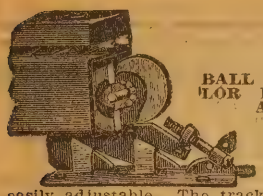
ANTI-FRICTION ROLLER BEARING CASTERS

Revolves upon a Series of Steel Rollers or Discs. Saves wear and tear on carpets; does not mar the floors.

Size of Wheel, In.	Set of Four
4 X 3811. 1 1/16	$0.50
4 X 3812. 1 1/4	.62
4 X 3813. 1 1/2	.80
4 X 3814. 1 7/8	1.05

Let Us Estimate Your Hardware Needs

Premier Warranted Files and Hardware Bargains



BALL BEARING PARLOR DOOR HANGERS AND TRACK

Full ball bearing nicely vulcanized fibre wheels, hangers are made of steel, and are easily adjustable. The track is of special cold rolled steel, rigid and firm. Full directions with each set. Prices are for hangers complete with track.

4X3701. For double doors.

Size in feet	4	5	6	7
Price, per set	$5.80	$6.25	$6.85	$7.55

4X3703. For single doors.

Size in feet	3	4	5	6
Price, per set	$3.60	$4.15	$4.70	$5.25

FIBRETREAD NOISELESS BALL BEARING DOOR HANGERS AND TRACK

Made entirely of steel with full ball-bearing fibre tread rolls. Furnished complete with hangers, track and all necessary fixtures. Heaviest and strongest hanger on the market.

4X3705. For double doors, complete with 14 ft. of steel track fixtures. Per set **$5.95**

4X3707. For single doors, complete with 8 ft. of track and fixtures. Per set $3.60

WROUGHT STEEL FLAT CORNER IRON

4X2565.

Length of Sides.	Width.	Price per Doz.
2½ in.	½ in.	27c
3 in.	½ in.	29c
3 in.	⅝ in.	33c
4 in.	¾ in.	42c

Less screws.

WROUGHT STEEL MENDING PLATES

4X2566.

Length.	Width	Price Per Doz.
2 in.	⅝ in.	25c
3 in.	¾ in.	35c
4 in.	⅞ in.	43c

Less screws.

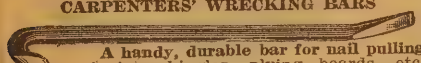
WROUGHT STEEL CORNER IRON

4X2567

Length of Sides.	Width	Price Per Doz.
1 in.	½ in.	14c
1½ in.	⅝ in.	20c
2 in.	⅝ in.	26c
2½ in.	⅝ in.	34c
3 in.	¾ in.	40c
4 in.	⅞ in.	68c

Less screws.

CARPENTERS' WRECKING BARS



A handy, durable bar for nail pulling, ripping shingles, plying boards, etc., drop forged, ¾ in. octagon steel, claw on one end, and wedge points on other. Length, 30 in.; shipping weight, 5 lbs. **39c**

4X2560. Price, each 39c
4X2561. 24x¾ in. Price 36c
4X2562. 12x½ in. Price 20c

Huntington Pattern Emery Wheel Dresser

This Emery Wheel dresser is used for purpose of truing, shaping and removing glaze from emery wheel while running at full speed. This tool will entirely remove glaze, thereby causing the emery wheel to grind properly.

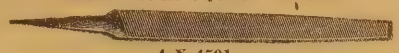
4X2662. Price with two sets of cutters 70c
4X2666. Extra cutters, per set 8c

HOLLOW HANDLE AWL SET

Hollow hardwood handle 5 inches long, containing 50 ft. best waxed linen shoe thread, 3 awls and 5 needles, assorted sizes.
4X4539. Price 62c

The best cutting and most satisfactory files manufactured. Made of special crucible steel, carefully hardened and tempered.

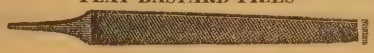
MILL FILES SQUARE EDGE



4-X-4501

Lgth. in.	4	6	8	10	12	14	16
Price, ea.	$0.13	$0.15	$0.18	$0.24	$0.31	$0.45	$0.62

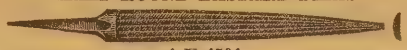
FLAT BASTARD FILES



4-X-4502

In.	4	5	6	8	10	12	14	16
Ea.	$0.15	$0.16	$0.18	$0.24	$0.29	$0.41	$0.55	$0.74

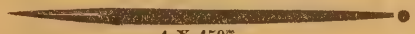
HALF ROUND BASTARD FILES



4-X-4504.

Length, inch	6	8	10	12	14
Each	$0.25	$0.31	$0.38	$0.48	$0.65

ROUND BASTARD FILES



4-X-4507

Length, inch	4	5	6	8	10	12
Price, each	$0.13	$0.14	$0.15	$0.18	$0.24	$0.31

SQUARE BASTARD FILES

4-X-4509

Length, inch	4	5	6	8	10	12
Price, each	$0.16	$0.17	$0.18	$0.23	$0.31	$0.43

MILL FILES WITH ONE ROUND EDGE

4-X-4511

Length, inch	8	10	12	14
Price, each	$0.20	$0.26	$0.35	$0.50

TAPER SAW FILES, SINGLE CUT

4-X-4513

Length, inch	3	4	5	6	7	8
Each	$0.10	$0.11	$0.12	$0.13	$0.17	$0.24

SLIM TAPER SAW FILES, SINGLE CUT

4-X-4515

Length, inch	3	4	5	6	7	8
Each	$0.10	$0.11	$0.12	$0.13	$0.16	$0.18

CANT SAW FILE

4-X-4517

Length, inch	5	6	8	10
Each	$0.19	$0.22	$0.26	$0.36

PREMIER AUGER BIT FILE

4-X-4519

Suitable for filing any size auger bit without filing the screw or lip. Will save auger bits.
Each $0.17

HALF ROUND WOOD RASP

4-X-4521

Length, inch	8	10	12	14
Each	$0.40	$0.50	$0.70	$0.90

STEEL WIRE FILE CLEANER

4-X-4533. Made with steel wire bristle. Price .. $0.15

WOOD FILE HANDLES

4-X-4537. Furnished in three sizes, large, medium and small. Be sure and give size wanted when ordering.
Price, each $0.10

Interchangeable File and Tool Holder

Will hold files and tools square, round or flat shank, smaller than ⅜ inch.
4-X-2668. Price, each $0.10

WROUGHT STEEL PADLOCK

Heavily brass plated with self locking spring shackle, 6 screw levers, 2 double fitted barrel keys.
4-X-3757. Price **34c**

3-LEVER BRASS PADLOCK

For outside use, heavy spring shackle, self locking, 2 flat steel keys.
4-X-3753. Price **46c**

BRONZE BICYCLE LOCK

Extra strong shackle and bolts, self locking spring shackle furnished with 10-in. nickel plated steel chain, with solid steel ring; 2 keys. A strictly first class lock.
4-X-3745. Price **44c**

SOLID STEEL PADLOCK

Stronger and more durable than the old steel rod iron padlock. Case is made of annealed steel, contains no rivets or loose parts. Japan finish polish shackles, with 2 keys.
4-X-3725. Price, each **15c**

6-LEVER WROUGHT STEEL

Solid rod steel, case heavily brass plated, and handsomely finished; six screw levers, all brass inside work; self locking spring shackle; 2 flat steel keys.
4-X-3739. Price, each **42c**

RURAL MAIL BRASS PADLOCK

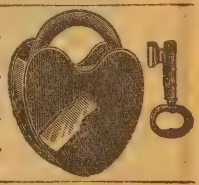
Solid hard brass inside works. Will not rust or corrode. Automatic spring shackle. Price includes 2 keys with each lock. One master key for use of mail carrier furnished with each dozen locks.

4-X-3747. Price, each, without chain **48c**

4-X-3749. With 6 inch brass chain. Price, each 53c

Note: The government requires all master keys to be delivered by us to postmaster of each rural route. In ordering give name and address of postmaster to whom master key is to be sent.

STEEL LOCK WITH BRASS DROP



Brass cover key hole, case made of annealed steel, contains no rivets or loose bolts, shackle made of highest quality malleable iron, 2 keys.
4-X-3727. Price, each .. **23c**

ORNAMENTAL STEEL LOCK

One of our best values, ornamental brass plated, steel case, strong spring shackle, self locking, with 2 flat steel keys.
4-X-3729.. Price **23c**

8-LEVER RUST-PROOF STEEL

Heavily brass plated with heavy self locking spring shackle, 6 screw levers, 2 double heated barrel keys, and strong durable lock. An exceptional value.
4-X-3755.
Price **68c**

PREMIER CIRCULAR SAWS

The Steel All premier circular saws are made of the highest grade crucible steel. The steel is subjected to severe tests before we allow it to be used. Every saw represents the highest art of the chemist and scientist, and is absolutely the finest material manufactured in the most thorough process known. The toughness and perfect temper together with the precise tensile strength of these saws have earned them a national reputation.

Our Factory The factory which produces Premier saws is one of the most modern and scientific in the world. Every blade is inspected by an expert, placed on a mandrel and tested for any variation at double the speed it will ever be used. The grinding is accurately done on huge precision machines which makes each saw true to gauge and smooth surfaced—thereby increasing its cutting qualities. The filing and finishing are likewise done by experts by hand, a process which prevents blueness or case-hardening at the points—the cause of breakage.

Guarantee Do not use a cold chisel or punch for retoothing a saw. It is certain to twist or crack the blade. Filing the corners square in the gullet will frequently produce the same disastrous result. By all means do not re-sharpen saw when the temperature is low. Our guarantee does not cover saws breaking from any of these causes. We guarantee these saws to be crucible steel perfectly manufactured. We guarantee them against any defects in the saw proper—provided they are not subjected to improper usage.

Satisfaction Our Premier saws have given satisfaction for long and continued service to users all over the United States. The prices you will notice are undoubtedly the greatest bargain offers ever made on such high-grade "quality" saws—brand new, finest crucible steel, hand filed, expert tested, latest patterns. They cut straight and true, don't dodge knots nor wobble off the line.

Lot 4-X-4203

SOLID-TOOTH CUT-OFF SAW

Be sure to state diameter, gauge, hole, lot No., whether rip or cut-off saw, whether for left or right-hand mill.

Diameter	Thickness Gauge	Size Hole	Shipping Weight	Price	Diameter	Thickness Gauge	Size Hole	Shipping Weight	Price
4	19	¾	4 oz.	$ 1.35	34	9	1⅝	50 lbs.	$ 30.60
6	18	¾	7 oz.	2.05	36	9	1⅝	65 lbs.	35.15
8	18	⅞	1 lb.	2.75	38	9	1⅝	92 lbs.	39.70
10	16	1	2½ lbs.	3.75	40	9	2	102 lbs.	46.50
12	15	1	4 lbs.	5.00	42	8	2	110 lbs.	53.30
14	14	1⅛	6 lbs.	6.00	44	8	2	120 lbs.	62.35
16	14	1⅛	8 lbs.	7.35	46	8	2	130 lbs.	73.70
18	13	1¼	10 lbs.	9.00	48	8	2	137 lbs.	85.00
20	13	1 5/16	12 lbs.	10.75	50	7	2	155 lbs.	96.40
22	12	1 5/16	15 lbs.	13.00	52	7	2	168 lbs.	107.75
24	11	1⅜	20 lbs.	15.30	54	7	2	360 lbs.	119 00
26	11	1⅜	24 lbs.	18.10	56	7	2	182 lbs.	136.00
28	10	1½	28 lbs.	20.95	58	7	2	190 lbs.	153.00
30	10	1½	33 lbs.	23.80	60	6	2	205 lbs.	170.00
32	10	1⅝	35 lbs.	27.20					

Lot 4-X-4201

SOLID TOOTH RIP SAW

ABOUT SHIPMENT!

We can ship saws up to 40 inch at once. We do not list any special sizes here, but can secure them to order and will make delivery promptly. Write us for prices on special saws. All saws up to the 30 inch are shipped from Chicago.

WHEN YOU ORDER

When you order please state exact style, lot number, diameter, size of hole, for left or right handed mill. These saws are set and sharpened, ready to use. On all saws larger than 40 in. you are entitled to have free the rim beveled one gauge thinner.

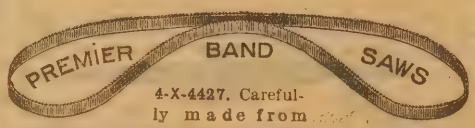
Lot 4-X-4205

INSERTED-TOOTH SAWS

The mandrel holes on the rough plates are 2 in. in diam., with 2 ⅝-in. pin holes spaced 3 in. center to center. When ordering be sure to state number of teeth wanted, diameter, gauge at center and at rim, horsepower of engine, r.p.m. while cutting, rip or cross-cut, right or left hand mill. No cancellation of order. 2 extra shanks and 200 points furnished with 52 in. saw or smaller. 1 wrench, 3 extra shanks and 300 extra points furnished with 54-in. saw or larger. Can furnish one gauge heavier or lighter.

Diameter Inches	Gauge	Size of hole	No. of Teeth	Price, Each
40	8	2"	26	$ 95.25
42	8	2"	28	106.50
44	7	2"	30	114.50
46	7	2"	30	123.50
48	7	2"	32	134.50
50	7	2"	34	151.95
52	6	2"	36	176.90
54	6	2"	38	197.25
56	6	2"	40	214.25
58	6	2"	42	238.00
60	5	2"	42	260.00

PREMIER BAND SAW BLADES



4-X-4427. Carefully made from special tool steel, they are extra flexible and made to stand hard usage. We furnish them in numerous lengths and gauges as listed below:

Width Inches	No. Gauge	Length, feet 10	12	14	16	18	20
¼	21 or 22	$1.47	$1.69	$1.91	$2.13	$2.35	$2.57
⅜	21 or 22	1.70	1.94	2.18	2.42	2.66	2.90
½	21 or 22	1.90	2.18	2.46	2.74	3.02	3.30
⅝	21 or 22	2.35	2.67	2.99	3.31	3.63	3.95
¾	21 or 22	2.55	2.91	3.27	3.63	3.99	4.35
1	20 or 19	3.20	3.64	4.08	4.52	4.96	5.40

FOR LENGTHS DIFFERENT FROM THOSE LISTED take price of the next longer length. Prices quoted above are F. O. B. cars our factory. Postage on the different Saws will be as follows:

Widths, ¼-inch, ½c per foot; widths, ⅜ or ½-inch, 1c per foot; widths, ⅝ or ¾-inch, 1½c per foot; widths, 1-inch, 2c per foot. In ordering saws, allow for postage.

POINTS AND HOLDERS FOR PREMIER INSERTED TOOL CIRCULAR SAWS

Your attention is called to the shoulder supporting the tool which does not depend upon the rim for support as other inserted tool saws do. This style of tool is adapted for high speed saw mills as the only tool made that will run on an 8 or 12-inch feed.

4-X-4207. Extra Fine Steel Bits only.
Per hundred ..... $7.00 Each 8c

4-X-4209. Drop Forged Extra Holder for Points.
Each 50c

4-X-4211. Premier Inserted Tool Wrench.
Price each $1.75

Lot 4-X-4213

CORDWOOD AND POLE SAWS

The Premier circular cordwood and pole saws are made especially for cutting cordwood and poles. They are natural Oil Temper finish. Manufactured by the same expert mechanics and of the same high grade material used in all other Premier saws. They are ground, hand filed, set and sharpened for the use intended, but are not constructed for high speed works.

Our bargain prices on these saws are unbeatable. You can't get an equally serviceable, strong saw at anywhere near our great money saving offer.

Any size saw and mandrel hole on saws furnished direct from factory if specified; otherwise we ship saws with 1⅝" mandrel hole.

Diameter Inches	Gauge No.	Size hole, Inches	Price
20	13	1⅝	$ 4.75
22	12	1⅝	5.80
24	11	1⅝	6.80
26	10	1⅝	8.10
28	10	1⅝	9 30
30	10	1⅝	10.60

PREMIER CROSS-CUT SAWS

Made of High Grade Special Saw Steel unequalled in material, workmanship and temper. Premier Cross-Cut Saws are accurately ground, filed and hand set. Each saw is closely inspected and tested at the factory before shipment. They are the fastest cutting and easiest running saws manufactured. All saws are sharpened ready for use. **We guarantee every saw to give perfect satisfaction or money refunded.**

PREMIER PERFORATED LANCE TOOTH CROSS-CUT SAWS.

4-X-4101. A general favorite with the lumbermen. Thin back, ground 4 gauges thinner on back than on cutting edge. An easy and fast cutter. Will not bind in the timber. Each saw most carefully tempered, filed and hand set. **Guaranteed fully in every particular. Prices do not include handles.**

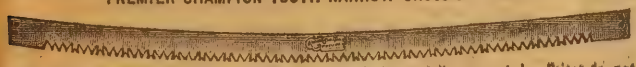
Length, feet	5	5½	6	6½	7
Price	$3.82	$4.20	$4.58	$4.97	$5.35

PREMIER CHAMPION TOOTH WIDE CROSS-CUT SAW.

4-X-4103. Taper ground, thin back, set and sharpened. A strictly first class saw fully warranted. Prices do not include handles.

Length, feet	5	5½	6	6½	7
Price	$3.08	$3.39	$3.70	$4.00	$4.31

PREMIER CHAMPION TOOTH NARROW CROSS-CUT SAW.

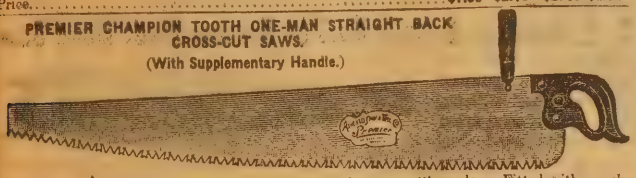


4-X-4105. Properly tempered, set and sharpened. Each saw fully warranted. Prices do not include handles.

Length, feet	5	5½	6	6½
Price	$1.96	$2.18	$2.35	$2.54

PREMIER CHAMPION TOOTH ONE-MAN STRAIGHT BACK CROSS-CUT SAWS.

(With Supplementary Handle.)

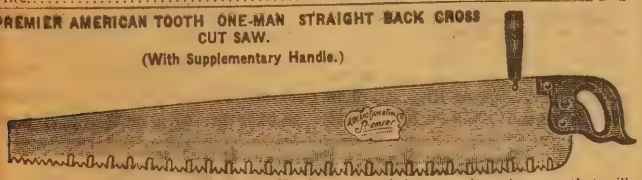


4-X-4107. Ground two gauges thinner on back than on cutting edge. Fitted with supplementary handle. You cannot buy a better saw at any price. **Guaranteed to give entire satisfaction.**

Length, feet	3	3½	4	4½	5
Price	$2.04	$2.28	$2.72	$3.07	$3.40

PREMIER AMERICAN TOOTH ONE-MAN STRAIGHT BACK CROSS CUT SAW.

(With Supplementary Handle.)



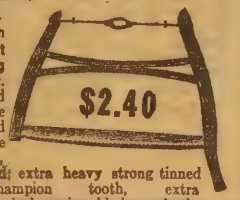
4-X-4109. Taper Ground, thin back. Hand set and filed. A good cutting saw that will give excellent service. **Fully warranted.**

Length, feet	3	3½	4	4½	5
Price	$2.13	$2.48	$2.84	$3.19	$3.54

BUCK SAWS

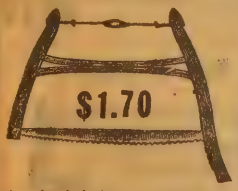
4-X-4111 selected hardwood frame Painted red. With tinned rod, blued clock spring blade, 2¼ inches wide, properly tempered. "V" shaped teeth set and sharpened ready for use. Fully warranted. Price..... **$2.10**

4-X-4113. Extra blades. Price, each. **60c**



4-X-4119. Extra high grade fast cutting Buck Saw. Selected hard maple frame, solid one-piece brace, painted red; extra heavy strong tinned rod, Champion tooth, extra thin back, clock spring blade, perfectly tempered, hand filed and set. Ready for use. A better saw cannot be made. Price..... **$2.40**

4-X-4121. Extra blades. Price..... **70c**



4-X-4115. Selected Maplewood Frame with Double Riveted Brace, Varnished Natural Color. Heavy tinned rod, clock spring blade, finely tempered, taper ground, extra thin back, "V" shaped teeth, hand filed and set. Ready for use. An easy running saw. **Guaranteed to give entire satisfaction.** Price..... **$1.70**

4-X-4117. Extra blades, width, 1½ inches. Price..... **50c**

GENUINE AIKENS' SAW SETS.

4-X-4123. Genuine Aikens' Pattern Hammer Saw Set. Made of the highest grade forged steel... **70c**

WHITING PATTERN SAW SET.

4-X-4125. Highest grade steel, properly tempered. Suitable for any kind of cross cut saw..... **60c**

ADJUSTABLE BENCH STOP.

4-X-4127. Reversible screw adjustment. Cast steel head. May be raised by means of adjusting screw. Price..... **62c**

PREMIER DIAMOND TOOTH CROSS-CUT SAWS.

4-X-4129. Ground to a true taper. 4-gauges thinner on back than on cutting edge. Prices **do not include handles. Fully warranted.**

Length, feet	5	5½	6	6½	7
Price	$3.57	$3.93	$4.28	$4.65	$5.00

PREMIER PLAIN TOOTH CROSS-CUT SAWS.

4-X-4131. Taper ground, thin back. Fully warranted. Prices do not include handles.

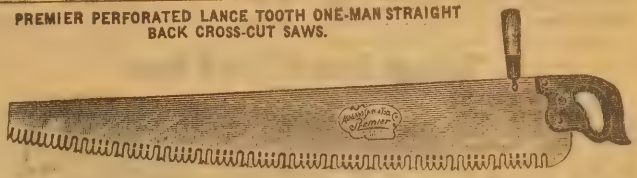
Length, feet	5	5½	6	6½	7
Price	$2.94	$3.23	$3.53	$3.82	$4.12

PREMIER CHAMPION TOOTH FELLING SAW.

4-X-4133. The best felling saw made. Fully warranted. Prices do not include handles.

Length, feet	5	5½	6	6½	7
Price	$4.06	$4.47	$4.87	$5.28	$5.68

PREMIER PERFORATED LANCE TOOTH ONE-MAN STRAIGHT BACK CROSS-CUT SAWS.

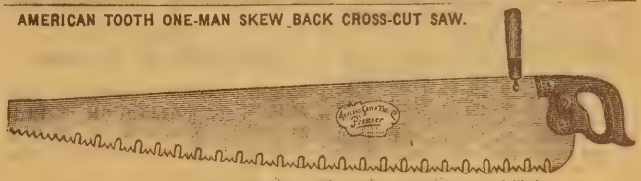


(With Supplementary Handle.)

4-X-4135. Ground Four Gauges Thinner on back than on cutting edge. The most popular and fastest cutting saw manufactured. **Fully warranted.**

Length, feet	3	3½	4	4½	5
Price	$2.50	$2.93	$3.33	$3.76	$4.17

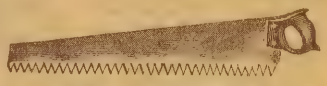
AMERICAN TOOTH ONE-MAN SKEW BACK CROSS-CUT SAW.



4-X-4137. Taper ground, thin back, properly tempered and hand set and filed.

Length, feet	3	3½	4	4½	5
Price	$2.13	$2.49	$2.83	$3.19	$3.54

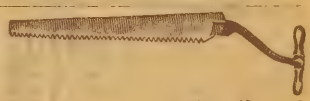
HAND ICE SAW.



4-X-4139. For wagon use. Extra crucible steel blade, fitted with iron handles. Each saw is properly tempered and fully guaranteed.

Length, in.	24	26	28	30
Price, each	$1.30	$1.50	$1.75	$2.10

POND ICE SAWS.



4-X-4141. Superior quality. Made of the best crucible saw steel, properly tempered, tapering, 7 inches at the butt and 5 inches wide at the point. **Fully warranted.**

Length, feet	4	4½	5
Price, complete with tiller handle	$3.95	$4.45	$4.95

ONE MAN CROSS-CUT SAW HANDLES

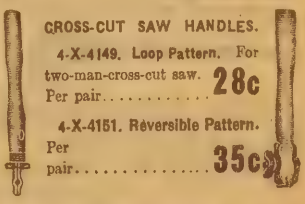
4-X-4143. Selected Beechwood, Varnished Edges. Without Screws.. **32c**

4-X-4145. Supplementary Handles with Rivet. Each, **17c**

STEEL ICE TONGS.

4-X-4147. Drop Forged Steel. Suitable for family and wagon use. Constructed in a superior manner and will handle 200 pounds **$1.20**

CROSS-CUT SAW HANDLES.



4-X-4149. Loop Pattern. For two-man-cross-cut saw. Per pair..... **28c**

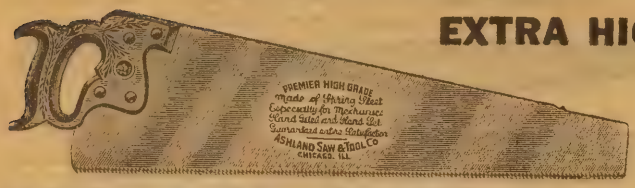
4-X-4151. Reversible Pattern. Per pair..... **35c**

ADJUSTABLE BENCH STOP

4-X-4153. Instantly adjustable to any position. Reversible head can be raised 2 inches above bench. Price..... **65c**

"PREMIER" HAND SAWS

EXTRA HIGH GRADE



PREMIER HAND SAWS **Premier Saws are hand made, hand smithed, hand blocked, hand filed and hand set.** The material, workmanship and finish is far superior to the popular brand saws. Every detail in the manufacture is perfect and no saw leaves the factory that is not carefully inspected and tested. We want your saw orders and fully realize that in face of competition we must furnish a saw that will be entirely satisfactory to the most critical mechanic. **Premier Hand Saws** will do this, as they are made in the most careful and approved manner by the best sawsmiths in the trade.

WARRANTED **to give satisfaction or they can be returned to us and the full purchase price will be promptly refunded.** The blades are of special refined spring steel, perfectly tempered, full taper ground, thin back. The teeth are full beveled, hand filed and hand set and will hold a fast cutting edge; will not bind and will run with very little set. The handles are correct in shape, giving the proper hang. Made of selected, seasoned apple wood. 26 and 28-inch saws have five brass screws and the smaller sizes have four. **Each Premier Hand Saw is fully warranted and is recommended for use by the mechanic and those who appreciate a good tool.**

4-X-4801. Premier extra high grade straight back, panel or hand saws.

Length	Points to the inch	Each
18-inch panel	9, 10, 11, or 12	$1.90
20-inch panel	9, 10, 11, or 12	2.05
22-inch panel	9, 10, 11, or 12	2.20
24-inch hand	8, 9, 10 or 11	2.35
26-inch hand	7, 8, 9, 10 or 11	2.55
28-inch hand	6, 7 or 8	2.85

4-X-4803. Premier extra high grade, straight back, Rip saws.

Length	Points to the inch	Each
24-inch	5, 5½, 6 or 6½	$2.35
26-inch	5, 5½ or 6	2.55
28-inch	4, 4½, 5, 5½ or 6	2.85
30-inch	4½ or 5	3.20

4-X-4823. Premier extra high grade skew back, panel or hand saws.

Length	Points to the inch	Each
18-inch panel	9, 10, 11 or 12	$1.90
20-inch panel	9, 10, 11 or 12	2.05
22-inch panel	9, 10, 11 or 12	2.20
24-inch hand	8, 9, 10 or 11	2.35
26-inch hand	7, 8, 9, 10 or 11	2.55
28-inch hand	6, 7 or 8	2.85

4-X-4825. Skew Back Premier extra high grade Rip saws.

Length	Points to the inch	Each
24-inch	5, 5½, 6 or 6½	$2.35
26-inch	5, 5½ or 6	2.55
28-inch	4, 4½, 5, 5½ or 6	2.85

"Chicago Special" Hand Saws

The best general purpose Saw ever offered. Made of high grade crucible saw steel, smithed and blocked by hand. Full taper ground, thin back. Teeth are full beveled, hand filed and hand set, ready for use. Strictly first class in every particular and are used largely by mechanics, who find them superior to saws sold elsewhere at prices ranging from $1.25 to $1.75. Selected cherry handles. **Four brass screws. Made only with wide straight back thin ground**

4-X-4805. Chicago Special panel or hand saws.

Length	Points to the inch	Each
18-inch panel	9, 10, 11 or 12	$1.65
20-inch panel	9, 10, 11 or 12	1.80
22-inch panel	9, 10, 11 or 12	1.95
24-inch hand	8, 9, 10 or 11	2.10
26-inch hand	7, 8, 9, 10 or 11	2.25
28-inch hand	6, 7 or 8	2.40

4-X-4807. Chicago Special Rip Saws.

Length	Points to the inch	Each
24-inch	5, 5½, 6 or 6½	$2.10
26-inch	5, 5½ or 6	2.25
28-inch	4, 4½, 5, 5½ or 6	2.40

C. E. Jennings & Co.'s No. 70½ Narrow Blade Hand Saw

Ground thin on back and guaranteed to run without set. The special grinding on this saw is such that assists it to run without set. Full concave taper ground and adapted for rapid, smooth cutting.

Blade is of special saw steel, strictly hand made and is very popular with carpenters.

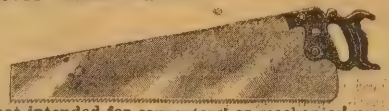
4-X-4827. Jennings' No. 70½ panel or hand saws.

Length	Points to the inch	Each
22-inch panel	10, 11 or 12	$2.40
24-inch hand	8, 9 or 10	2.65
26-inch hand	7, 8, 9 or 10	2.90

4-X-4829. Jennings' No. 70½ rip saws.

Length	Points to the inch	Each
26-inch rip	5 or 6	$2.95
28-inch rip	4½, 5 or 5½	3.20

Favorite Hand Saws



Made of good grade saw steel, set sharpened and ready for use. Hardwood handle, brass screws. A saw which will give excellent satisfaction for house and general use. It is not intended for carpenters' or mechanics' use.

4-X-4809 Favorite panel or hand saws.

22-inch panel, 10 or 12 points to the inch. Price. **$1.15**

24-inch hand, 8, 9 or 10 points to the inch. Price. **1.35**

26-inch hand, 8, 9, or 10 points to the inch. **1.50**

4-X-4811. Favorite rip saws.

26-inch rip, 5½ or 6 points to the inch. Price **$1.50**

28-inch rip, 5, 5½ or 6 points to the inch. Price **1.65**

COMMON COMPASS SAWS

4-X-4813. Made of good grade cast steel. Spring tempered, filed and set. Beechwood handles.

Length, inches	12	14
Price	22c	24c

HIGH GRADE COMPASS SAWS

4-X-4815. Thin back evenly tempered. Full bevel, filed and set. Beechwood handle, two screws.

Length, inches,	12	14	16
Price	70c	80c	90c

STEEL FRAME COPING SAW

4-X-4817. Nickel plated steel frame. Depth of cut 4 inches. **Complete with 13 6-inch tempered steel blades.** Price..... 25c

BEECHWOOD SAW HANDLES.

4-X-4819. For Hand and Rip Saws. Price, each..... 31c

4-X-4821. For Panel Saws. Ea 30c

BRASS SAW HANDLE SCREWS.

4-X-4841. Each... 6c

4-X-4843. Each... 7c

Genuine Henry Disston Hand Saws

Disston "D" 8 Hand Hammered Saws. The best known popular brand saw on the market. **Guaranteed to be strictly first quality and perfect in every particular.** Each saw bears the maker's name. Spring steel patent ground and tempered. Skew back, applewood handle. Five improved brass screws **When ordering be sure and specify the number of points.**

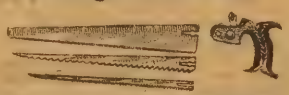
4-X-4831. 26-inch Hand Saw. 8, 9, and 10 points. Price.. **$4.75**

4-X-4833. 28-inch Rip Saw. 5 or 5½ points. Price..... **$5.00**

Nail Cutting Saw

4-X-4835. Will cut nails, pipe, bolts, soft sheet metal. Can be filed but does not require setting, being taper concave ground. Length of blade 18 inches. Price..... **$2.25**

Jennings Kit of Saws



For Plumbers', Electricians' and Carpenters' use. Consists of one 14-inch nail cutting, one 14-inch compass blade, one 12-inch keyhole blade. Adjustable handle. All blades interchangeable.

4-X-4837. Price..... **$1.85**

Nest of Saws

Consisting of one 14-inch panel saw, one 14-inch compass saw, one 12-inch keyhole saw. All interchangeable.

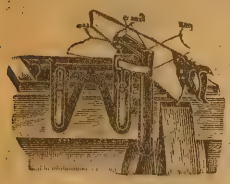
4-X-4839. Price..... **$1.25**

Our Line of Building Material is Complete.

MITER BOXES, SAW SETS AND VISES, HACK SAWS

LITTLE TOOLS THAT SAVE YOU BIG MONEY IN THE LONG RUN

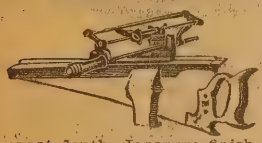
IMPROVED SEAVEY MITER BOX & SAW GUIDE



Adjustable to cut square or at an angle of 22½, 30 and 45 degrees. Panel or hand saw may be used with this guide, thereby doing away with a special saw; especially adapted for cutting moldings of any width or depth. Can be folded and carried in a tool chest **$2.45**

4-X-4911. Price without saw.....

ADJUSTABLE SAW FILING GUIDE



Used for filing saws with any style, bench vise, can always be used in connection with the regular saw vise, adjustable to file at any angle any level and exact depth, Japanese finish. **$1.75**

4-X-4947. Price complete with file....

BALL & SOCKET SAW VISE

No carpenter nor mechanic should be without this handy tool. It will save many times its original cost inside of a month.

Our price is the lowest of all on similar articles.

The reliable ball and socket saw vise is adjustable with bench clamp and can be set at any angle. Length of Jaws 9¼ inches, Japanned finish. Weight 9 lbs. **$1.90**

4-X-4941. Price each....

REVOLVING ECCENTRIC ANVIL SAW SET

Shows the required bevel and length of all saws ranging from 4 to 16 teeth to the inch. Figure on dial indicates number of teeth to the inch, and always in sight. Anvil and Plunger made of hardened steel with tempered steel spring. Weight 10 oz. **$1.20**

4-X-4923. Price.....

MITER BOX SAWS

Made from high grade tool steel, carefully hardened and tempered, evenly ground, hand filed set ready for use, heavy back. Width of blade under back 4 inches.

4-X-4913.	Length, inch.....	22	24	28
	Price, each.....	$3.00	$3.15	$3.50

NICKLE PLATED FRAME HACK SAWS

Strong adjustable frame, endurable and the best low price hack saw on the market. Weight 10 oz. **44c**

4-X-4951. Price complete with one 8-inch blade.....

ALL STEEL FOLDING SAW VISE

The most durable saw vise and the lightest tool to carry in tool chest, can be attached or detached instantly without clamping vise by means of folding hooks, jaws are 14 inches long, nicely japanned. Weight about 2 lbs. **90c**

4-X-4950. Price each.

WENTWORTH PATTERN SAW VISE

Flexible rubber cushion between jaws, which prevents vibration and renders saw filing noiseless. Width of Jaws 10½ inches. Weight 6 lbs. **$1.20**

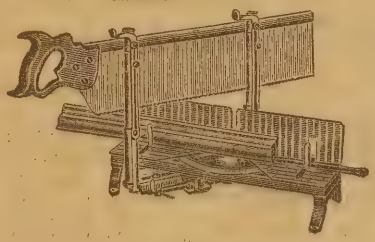
4-X-4927. Price ea.

IMPROVED ANVIL SAW SET

With this tool the teeth of the saw can be set with great rapidity and little effort. The lever is on the lower side. The anvil and plunger are hardened. The spring is of tempered steel, polished Nickel Plated finish, weight 10 oz. **95c**

4-X-4921. Price each.....

"LANGDON-ACME" MITER BOXES



Langdon Acme Miter boxes possess all the features heretofore embodied in similar styles but with the following improvements: The guides are one inch longer, which holds the saw steady to the highest capacity, has a graded arc in front with the various degrees marked thereon; saws are secured at all times by means of a small thumb lever in front of box provided with lever gage. Polished parts are all Nickel Plated. A high grade guaranteed saw furnished with this outfit. Size No. 1, capacity at right angles 7½, capacity at the Miters 5 inches. Size No. 2, 2½ capacity, at right angles 10¼ inches, at Miter 7 inches.

4-X-4901. Size No. 1 with 24x4 inch saw..$15.50
4-X-4903. Size No. 2 with 26x4 inch saw.. 17.45
4-X-4905. Size No. 2½ with 28x5 saw.... 19.25
4-X-4907. Size No. 2½ with 30x5 saw.... 19.95

COMBINATION CROSS CUT SAW TOOL

Cross cut saw filer jointer tooth gage cutting block, a tool that keeps cross cut saws in perfect condition. **48c**

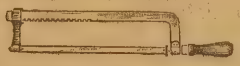
4-X-4945. Price with file and directions...

SAW JOINTER & SKATE SHARPENER

Adjustable to any thickness, saw blade can be used with any file **58c**

4-X-4917. Price each...

RIGID EXTENSION HACK SAW FRAME



Heavy steel Nickel Plated frame adjustable to take blade from 6 to 12 inches. **$1.78**

4-X-4953. Price with one 10-inch blade

IMPROVED FOOT POWER SAW SET

Will set a saw from the finest tooth to the two men cross cut saw, easily and quickly. This set is operated by means of a treadle leaving the operators' hands free to hold the saw. Stroke of handle is adjusted by means of thumb screw to striking light or heavy blow. With slight practice an inexperienced person can set a saw as perfectly as when it came from factory. **$1.25**

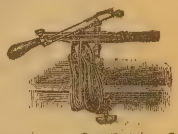
4-X-4943. Price.....

PERFECTION PATTERN MITER BOXES

A strong serviceable Miter box made of hardwood with metal guide which can be readily detached and folded to carry in a tool chest. Saw guide can instantly be set at angle 22½, 30 and 45 degrees, back saw, panel or hand saw can be used; for cutting to exact depth use a back saw. Weight, 9 lbs. **$2.70**

4-X-4909. Price.....

SAW FILING GUIDE & VISE



With this device saw filing is made easy. An inexperienced person can file a saw correctly. The ball and socket which connect the clamp to the vise permits the clamp to be turned in either direction. Jaws are 10½ inches rubber faced, which holds the saw firmly and deadens the noise. File and guide are adjustable. Price complete with directions **$2.95**

4-X-4949. Price.....

BACK SAWS

These saws are made from good tool steel with heavy back polished handles with three brass screws, hand filed and set ready for use, each saw fully guaranteed.

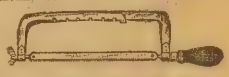
4-X-4915.	Length, inch...	10	12	14	16
	Price, each...	$1.05	$1.25	$1.45	$1.70

ADJUSTABLE SAW VISE

For attachment to work bench this vise has a malleable iron screw clamp and lever and cam to hold it in position. Width of jaws 9½ inches, Japanned finish, weight 4½ lbs. **$1.05**

4-X-4925. Price.....

EXTENSION NICKEL PLATED HACK SAW FRAME



Adjustable for blade to be set at four different angles, takes blades 8 to 12 inches. **50c**

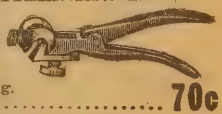
4-X-4935. Price, each, complete with one 8-inch blade.....

HANDY KIT OF TOOLS

Handy, practical combination of tools, consisting of Keyhole saw and pad, chisel, screw driver, two wrenches, awl, bit handle made of good quality steel. **12c**

4-X-4931. Price per set.....

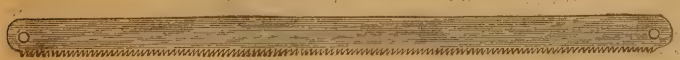
MORRELL'S PATTERN SAW SET



Morrell's pattern saw set for handle buck board and jig saw has hardened steel anvil and plunger, tempered steel spring. **70c**

4-X-4919. Price.....

HIGHEST GRADE HACK SAW BLADES



Fast cutting Hack saw blade made of special high carbon steel, properly tempered and are guaranteed to give first class satisfaction. Suitable for cutting tool steel and other metals.

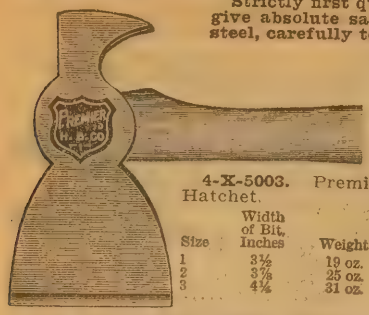
4-X-4937.	Length, inch...	8	9	10	12
	Price, per doz...	50c	55c	61c	72c

ADJUSTABLE SPOKE POINTER

4-X-6851. Made with a Graduated Square Adjustable Shank. Cutter is of high grade tool steel. Points up to 1⅞ inch in diameter. Each..... **85c**

HATCHETS | "Premier" | HAMMERS

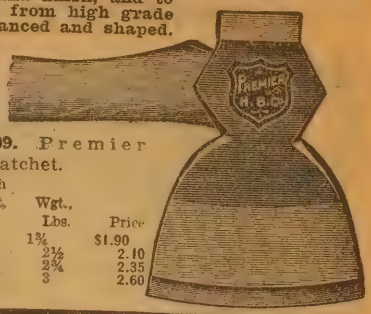
Strictly first quality, guaranteed to be perfect in material, workmanship and finish, and to give absolute satisfaction. Especially adapted for mechanics' use; forged from high grade steel, carefully tempered. Handles are selected white hickory, properly balanced and shaped.



4-X-5003. Premier claw Hatchet.

Size	Width of Bit, Inches	Weight	Price
1	3½	19 oz.	$1.45
2	3⅞	25 oz.	1.55
3	4¼	31 oz.	1.65

1.45

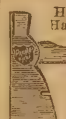


4-X5009. Premier Broad Hatchet.

Size	Width of Bit, Ins.	Wgt., Lbs.	Price
2	4½	1¾	$1.90
3	5	2½	2.10
4	5½	2¾	2.35
5	6	3	2.60

4-X-5001. Premier Shingling Hatchets.

Size	1	2	3
Width of Bit, in.	3½	3⅞	4½
Weight, oz.	17	23	29
Price	$1.45	$1.55	$1.65



4-X-5007. Premier High Grade Lathing Hatchets.

Size	1	2
Bit	2½ in.	2¾ in.
Weight	14 oz.	17 oz.
Price	$1.45	$1.55

4-X-5011. Premier Special Bell Poll Shingling Hatchet.

Size	1	2
Width of Bit	3 in	3½ in.
Weight	17 oz.	23 oz.
Price	$1.45	$1.55

Premier Special Underhill Pattern Lathing hatchet.

4-X-5029. Forged from extra tool steel, properly tempered, full polished. Width of bit, 2 in. Weight, not including handle, 15 oz. Price $2.15

4-X-5013. Premier Bell Poll Half Hatchet.

Size	1	2
Width of Bit	2¼ in	2½ in.
Weight	14 oz.	17 oz.
Price	$1.45	$1.55

Premier Homesteader Handled Axes

4-X-5109. The finest axe ever offered—the best made. Is the finest and easiest cutting axe ever produced. Forged from the best grade of steel. The bits are double refined crucible steel. Accurately ground. Selected handles, Michigan pattern only.

Wgt.	3¼ lb.	4 lb.	4½ lb.	5 lb.
Price	$2.05	$2.10	$2.15	$2.20

Premier High Grade Single Bit Axes

4-X-5101. Hand forged from the highest grade steel. Double refined crucible steel bits. Properly shaped and tempered. Will hold a fine cutting edge. Each axe fully guaranteed. Handles not included. Michigan patern.

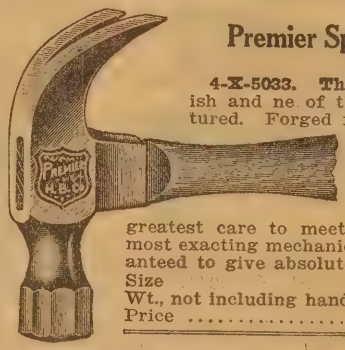
Weight	Price
3 lbs	$1.65
3½ lbs	1.70
4 lbs	1.75
4½ lbs	1.80
5 lbs	1.85

Chicago Special Single Bit Axes

4-X-5111. The best axe offered for all ordinary purposes. Absolute satisfaction guaranteed. Will hold a good cutting edge. Forged from good grade of steel. Michigan pattern.

Weight	Price
3 lbs	$1.40
3½ lbs	1.45
4 lbs	1.50
4½ lbs	1.55
5 lbs	1.60

Premier Special Nail Hammers



4-X-5033. The highest grade, finest finish and ne of the best hammers manufactured. Forged from extra tool steel, carefully tempered. Octagon poll, full nickel plated finish. Carefully selected handles fitted and wedged to head. Made with the greatest care to meet with requirements of the most exacting mechanic. These hammers are guaranteed to give absolute satisfaction.

Size	1	1½
Wt., not including handle, lbs.	1¼	1
Price	$1.90	$1.85

Holding Hammer Adze Eye Nail

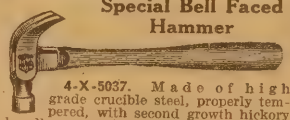
4-X-5035. With groove on side to hold nails size 10 penny and smaller. Made of the highest crucible steel and properly tempered. Second growth hickory handles properly fitted and wedged to head. Fully guaranteed. Weight, 19 oz., not including handles. Price $1.45

Specially Forged Steel Hammers

4-X-5017. Forged from special high grade steel, nicely polished and fitted with a selected hickory handle.

Size	1	1½	2
Weight	20 oz.	16 oz.	13 oz.
Each	$1.17	$1.12	$1.07

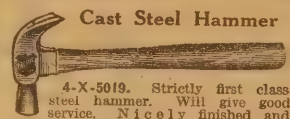
Special Bell Faced Hammer



4-X-5037. Made of high grade crucible steel, properly tempered, with second growth hickory handle, properly fitted and wedged to head. Every hammer fully guaranteed.

Weight	20 oz.	16 oz.	13 oz.	7 oz.
Price	$1.37	$1.32	$1.27	$1.22

Cast Steel Hammer



4-X-5019. Strictly first class steel hammer. Will give good service. Nicely finished and fitted with selected hardwood handle.

Weight, 16 oz. Price 43c

"Ever Ready" Handled Axes

4-X-5115. Ever Ready axes are carefully forged, properly shaped and finished in a superior manner. Handles are hickory stained, properly fitted to axe. A better axe at a lower price than ever before offered. Each and every axe guaranteed.

Wgt.	3 lbs.	3½ lbs.	4 lbs.	4½ lbs.
Price	$1.60	$1.65	$1.70	$1.75

Premier High Grade Double Bit Axes

4-X-5105. Hand-forged, full polished, double refined crucible steel bits, properly tempered. The best double bit axe manufactured. Guaranteed to give absolute satisfaction. Handles not included. Michigan pattern.

Weight	Price
3½ lbs	$2.15
4 lbs	2.20
4½ lbs	2.25
5 lbs	2.30
5½ lbs	2.35

Carpenters' Adzes

4-X-5025. Forged from high grade steel. Has fine cutting edge, properly tempered. Handles not included.

Weight			
Width cut lbs.	3¼	3½	3¾
Width cut in.	3½	4	4½
Price	$2.18	$2.20	$2.25

Premier Broadaxes

4-X-5127. Round corner Canada pattern Broadaxes. Made of high grade steel, properly proportioned. Ready for use. Handles not included.

Wt., lbs.	6	7	7½	8
Wt., cut in.	10½	11½	12	12½
Each	$5.30	$5.55	$5.75	$5.85

Woodchoppers' Wedges

4-X-2129. Regular pattern made from high grade steel, oil finished.

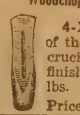
Weight, pounds	4	5
Price	40c	50c

Malleable Iron Axe Wedge

4-X-5121. Made with a screw, which prevents handle from pulling out.

Price, each .. 3c

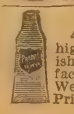
Truckes Pattern Woodchopers' Wedge



4-X-5131. Made of the highest grade crucible steel, oil finished.

Weight, lbs.	4	6	8
Price	39c	58c	80c

Saw Wedges



4-X-5133. Made of the highest grade tool steel, oil finished. Nothing better manufactured.

Weight, lbs.	1½	2½
Price	28c	37c

Oregon Pattern Mauls

4-X-5135. Made of high grade steel, oil finished.

Wt., lbs.	6	7	8
Price	$1.05	$1.20	$1.35

Chicago Special Double Bit Axes

4-X-5117. They are strictly hand-forged and properly proportioned. Bits are double refined crucible steel and will hold a perfect cutting edge. Natural forge temper finish. Handles not included. Michigan pattern.

Weight	Price
3 lbs	$1.95
4 lbs	2.00
4½ lbs	2.05
5 lbs	2.10

Write for Our Special Circular on Belting

Adjustable Iron Bench Planes

IRON BLOCK PLANES

4-X-5265. Iron Block Plane. 5½ inches long, 1¼-inch cutter. Price **70c**

4-X-5267. Iron Block Plane. 7 inches long, 1¾-inch cutter. Price **98c**

4-X-5277. Knuckle Joint Improved Throat Adjustment. For fine or coarse wood. Has improved lateral adjustment for cutter. 6¾ in. long, 1¾ in. cutter. Price **$2.15**

Adjustable iron smooth plane, 9 in. long, 2 in. cutter.
4-X-5201. Smooth bottom. Price **$3.50**
4-X-5203. Corrugated bottom. Price $3.75

4-X-5271. Adjustable Block Plane. 7 inches long, 1¼-inch cutter. Price **$1.40**

ADJUSTABLE IRON BENCH PLANES, SMOOTH AND CORRUGATED BOTTOMS

You can pay more but you cannot buy better planes. The castings are made of special gray iron of unusual toughness and finished in a superior manner. The bottom of the planes are as smooth as it is possible to make them. The cutters are made of the highest grade steel and are much heavier than the ordinary cutter. The cause of this is that the cutting edge is firm and solid and will not chatter in the hardest woods. Fitted with an adjusting lever by means of which the iron can be easily adjusted sideways, giving an easy lateral adjustment. The handles and knobs are genuine mahogany, highly polished.

We guarantee these planes to give perfect satisfaction or they may be returned to us and we will promptly refund your money.

Special Value

Our Leader, smooth bottom iron jack plane 14 inches long, 2-inch cutter. **4-X-5260** **$3.95**
4-X-5262, corrugated bottom $4.35

ADJUSTABLE IRON

Adjustable Iron Jointer Plane, 22 inches long, 2¾-inch cutter.
4-X-5213. Smooth bottom. Price....$5.95
4-X-5215. Corrugated bottom. Price 6.35

JOINTER PLANE

4-X-5241. Wood Jointer Plane. 26 inches long, 2½-inch cutter. Price **$1.75**

FORE PLANE

ADJUSTABLE IRON

Adjustable iron fore plane, 18 inches long, 2⅜-inch cutter.
4-X-5209. Smooth bottom. Price....$5.10
4-X-5211. Corrugated bottom. Price 5.50

Adjustable Wood Bottom Jointer Plane
4-X-5229. 24 inches long, 2½-inch cutter. Price $3.25

IRON BLOCK PLANES

4-X-5273. Double End Block Plane. With two slots and two seats for cutter. By changing the cutter and lever from one end to the other, it can be used to plane in close corners. Can also be used as a block plane. Length 8 inches, 1¾-inch cutter. Price **$1.35**

ADJUSTABLE PLANE GAUGE
For Iron or Wood Planes

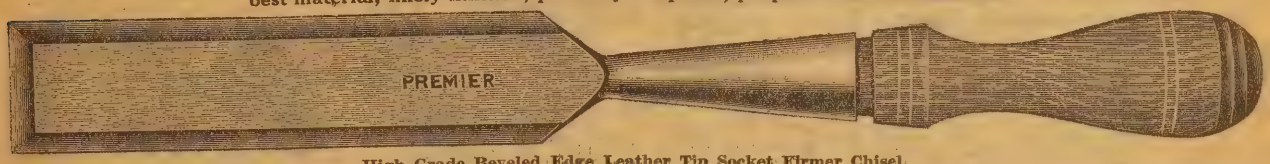
4-X-5279. For Planing Bevels of any angle or square joints, without use of a tri-square or bevel. Can be quickly attached or removed. Price **$1.30**

4-X-5269. Adjustable Block Plane. 5½ inches long, 1¼-inch cutter. Price **95c**

4-X-5275. Adjustable Block Plane with Improved Throat Adjustment. For fine or coarse wood. Fitted with improved lateral adjustment for cutter. 6 inches long, 1¾-inch cutter. Price **$1.90**

Chisels, Chisel Handles and Draw Knives

We Guarantee Satisfaction—The chisels shown on this page are made of the best material, finely finished, perfectly tempered, proportioned and balanced.

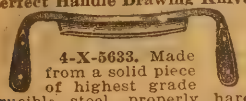


High Grade Beveled Edge Leather Tip Socket Firmer Chisel.

4-X-5601. Made of the best steel that is possible to buy, carefully hardened and tempered. Each tool is carefully inspected during the process of manufacture, and after it is finished. Every tool is of uniform hardness and possesses a fineness of temper and a perfect cutting edge. They are hand honed, and finished in the best possible manner. Handles are of select White Hickory, leather tip. We guarantee these chisels to be satisfactory in every respect.

Size, inches.	⅛	¼	⅜	½	⅝	¾	⅞	1	1¼	1½	1¾	2
Price each..	55c	56c	57c	59c	63c	65c	70c	74c	78c	80c	85c	90c

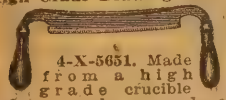
Perfect Handle Drawing Knives



4-X-5633. Made from a solid piece of highest grade crucible steel, properly hardened and tempered; the blade can be ground and reground, and will always hold a fine cutting edge. Hardwood handles securely fastened.

Length, inches.	8	10	12
Price each....	$1.85	$2.10	$2.30

High Grade Drawing Knives



4-X-5651. Made from a high grade crucible steel; properly ground and tempered as a razor blade. Tangs extend through handles, and will not pull out.

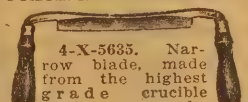
Length, inches.	8	10	12
Price each....	$1.15	$1.35	$1.55

PLAIN EDGE CHISEL

4-X-5607. Made of special high grade steel, carefully hardened and tempered. Each Chisel is carefully sharpened; handles of selected White Hickory, leather tips.

Size, inches.....	⅛	¼	⅜	½	⅝	¾
Price, each.....	48c	49c	50c	52c	56c	57c
Size, inches.....	⅞	1	1¼	1½	1¾	2
Price, each.....	63c	67c	71c	75c	78c	83c

COACH-MAKER'S KNIVES



4-X-5635. Narrow blade, made from the highest grade crucible steel, properly tempered; tangs extend through handles and will not pull out. Guaranteed to give entire satisfaction.

Size, inches	8	10	12
Price, each.	$1.10	$1.25	$1.38

SOCKET CHISEL HANDLES

4-X-5625. Selected hickory, 3 layers, best oak tan leather.
Price each..... 5c

BEVELED EDGE SOCKET FRAMING CHISEL

4-X-5609. Blades made of Crucible Steel; hardened, tempered and finished in a high grade manner. Specially selected Hickory handle with iron rings on end.

Inch	⅝	½	¾	1	1¼	1½	1¾	2
Price each	$0.62	$0.66	$0.69	$0.73	$0.80	$0.88	$0.95	$1.03

HIGH GRADE SOCKET BUTT CHISELS

Especially adapted for putting on Butts, and working in close places. Length of blade about 3½ inches. High grade quality and finish; leather tip; solid Hickory handle.

Length in inches	1	1¼	1½	1¾	2
4-X-5655. Price each..	68c	71c	75c	78c	82c

SOCKET CORNER CHISEL

4-X-5617. Properly tempered; selected Hickory handles, with iron ring on end to prevent splitting.

Size inches.....	¾	1
Price each.....	$1.60	$1.68

SOCKET FIRMER CHISEL HANDLES

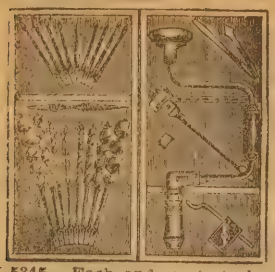
4-X-5643. Selected hickory, with iron rings on end to prevent splitting.
Price each..... 46

OUR BINDING GUARANTEE BACK OF EVERY TOOL

BITS & BRACES BEST BUYABLE

FINEST TOOLS MADE—LOWEST PRICES, TOO

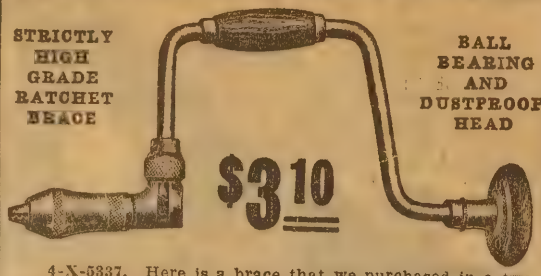
EXPERT BRACE AND BIT SET



4-X-5345. Each and every tool within this set guaranteed. The set consists of one ten-inch high grade ball bearing ratchet bit brace with metal clad head, 3 single twist auger bits, sizes ¼, 5/16, ⅜, ½, ⅝, ⅞ and 1 inch; 8 German pattern gimlet bits, sizes ⅜ to 7/32; 1 Mephisto expansion bit; 1 screw driver bit; 1 square reamer; 1 bit gauge; 1 snail countersink; 1 auger bit file. Complete in a hardwood box.
Price **$11.95**

STRICTLY HIGH GRADE RATCHET BRACE

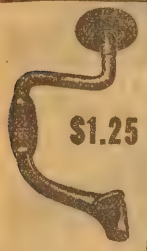
BALL BEARING AND DUSTPROOF HEAD



4-X-5337. Here is a brace that we purchased in a two-carload lot from an overstocked manufacturer, at less than cost of materials used. Strictly high grade ratchet brace. Ball bearing dustproof head. Machine made throughout. Cold drawn steel sweep. All metal parts highly polished and heavily nickel plated and nicely finished throughout. Cocobola head and handle with improved metal capped head. Forged alligator spring jaws. Will take square or round shank drills. Sweep, inches, 8, $3.10; 10, $3.20; 12, $3.30.

MECHANICS' FAVORITE BRACE AND BIT SET

4-X-5321. Every item in this set is carefully selected with a view of furnishing an outfit that is guaranteed to give satisfaction. The set consists of one 10-inch ball bearing dustproof head nickel-plated ratchet brace with forged alligator jaws; 8 Irwin pattern auger bits cutting from ¼ to 1 inch; 1 Clark's pattern expansion bit; 1 screw driver bit; 3 German pattern gimlet bits. Put up in a hardwood box.
Price per set..... **$9.75**



4-X-5339. Great favorite with carriage builders, wood workers and blacksmiths. Solid steel jaws and bows. Cocobola head and handle nickel plated. Holds square shank drill or bit.

Sweep	Price
8 inches	$1.25
10 "	1.50
12 "	1.60

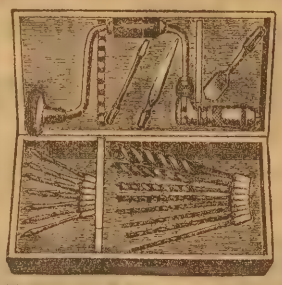
4-X-5329. A substantial ratchet brace for all purposes. Metal clad head, cold drawn steel sweep. Ebonized hardwood head and handle. Hardened alligator jaws. Finely polished and nickel plated.

Sweep	Price
10 inches	$1.25
12 inches	1.30

4-X-5323. A substantial and satisfactory brace for all ordinary use. 7/16 inch cold drawn steel sweep, natural finish. Nicely polished head and handle. The best low priced brace ever offered.

Sweep	Price
8 inches	70c
10 inches	75c

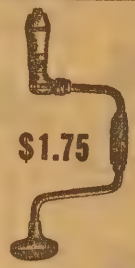
HARCO BRACE AND BIT SET



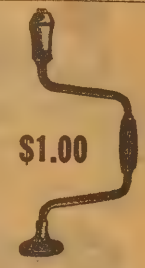
4-X-5343. A first-class outfit that will answer all general requirements for form, shop and mechanics' use, consisting of: one 10-inch nickel - plated ratchet brace with alligator jaws; 8 Jennings pattern extension lip auger bits, sizes ¼ to 1 inch, 3 bit stock drills; 3 German pattern gimlet bits; 1 screw driver bit; 1 flat countersink and 1 square reamer. Put up in a neat hardwood box. Price per set..... **$6.25**

4-X-5325. Ring ratchet braces nicely polished. Cold drawn steel sweep alligator jaws. Polished satinwood head and handle. Natural finish, fully warranted.

Sweep	Price
10 inches	$1.95
12 inches	2.05



4-X-5335. The best ratchet brace ever offered at this low price. Strong, durable and well made for all ordinary use. Has 7/16-inch cold drawn sweep, hardened steel jaws. Hardwood head and handle. 10 in. sweep.
Price **$1.75**



4-X-5327. A strong, durable brace. Ebonized hardwood head and handle. Cold drawn steel sweep. Heavily nickel - plated. Steel alligator jaws.

Sweep	Price
8 inches	$1.00
10 inches	1.10
12 inches	1.20

BALL BEARING BREAST DRILL

4-X-5317. Japanned malleable frame, polished cocobola handles. Nickel plated chuck. Changeable gear from even to speeded about 3 to 1 with level attachments to show when drill is being held true. Steel alligator jaws will take any size bit stock, also round shank drill bits up to 3 in.
Price **$4.75**

COMBINATION BALL BEARING RATCHET BRACE AND DRILL

4-X-5315. A tool which can bore holes in close places. Has ball bearing head and forged steel alligator jaws. Will hold straight, round shank drills, as well as regular drill bits. By removing the hand drill attachment you have a fine ball bearing ratchet brace, 10 in. sweep. Steel cut gears. Cocobola head and handles. All parts are fully nickel-plated. Price..... **$6.20**

DOUBLE GEARED BREAST DRILL

4-X-5333. Ball bearing with level attachment. Heavy nickel-steel frame, 6 in. drive wheel, cut gears. Cocobola handles. Alligator jaws which handle any size bit stock, also round shank drills from ⅛ to ½ in. Fully warranted.
Price each..... **$5.65**

PRATT'S PATENT AUGER HANDLE OR RATCHET DRILL

4-X-5341. Used as an auger handle in horizontal position. For use in close places. One handle can be removed and placed at right angles. Can also be used as a ratchet drill.
Price each..... **$3.38**

UTILITY BRACE AND BIT SET

4-X-5319. Just what is required for home and farm use. A careful comparison will convince you that we offer more for the money than can be secured elsewhere. This set consists of: one 10-inch nickel-plated ratchet brace; 8 standard double spur bits, ¼ to 1 in.; 3 German pattern gimlet bits; 1 high grade screw driver bit. Put up in a neat hardwood box.
Price **$4.95**

PLANE HANDLES

4-X-5311. Selected beechwood jack plane handles.
Price each..... **9c**

4-X-5313. Selected beechwood Fore Plane Handles.
Price each..... **12c**

HIGH GRADE PLANE IRONS

Made of high grade steel carefully tempered. All double irons have steel caps.

4-X-5301. All iron and wood bottom planes. Single Irons.

Width in in.	2	2⅛	2⅜	2⅝
Price	20c	22c	26c	28c

4-X-5303. Double Irons.

Width in in.	1¾	2	2⅛	2⅜	2⅝
Price	31c	33c	35c	39c	42c

4-X-5305. Irons for Beechwood Planes. Single Irons.

Width in inches	2	2¼	2½
Price	26c	29c	35c

4-X-5307. Double Irons.

Width in inches	2	2¼	2½
Price	52c	58c	68c

4-X-5308. Irons for Block Planes.

Width in inches	1¼	1¾
Price	12c	15c

BALL BEARING RATCHET BIT BRACE

4-X-5331. The best ratchet brace that is possible to produce, and will meet the requirements of the most critical mechanics. It has solid steel chucks. Hardened forged steel alligator jaws, which will hold any size square shank, as well as the small size round shank drills. ½-in. cold drawn steel sweep, finely polished and heavily nickel plated. Dustproof ball bearing metal clad head, polished cocobola head and handle, steel enclosed frame.

Sweep in inches	8	10	12	14
Price	$4.05	$4.20	$4.35	$4.50

You Can Install Your Own Heating Plant. Write Us.

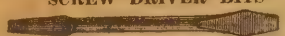
HARRIS BROTHERS CO.
35th & Iron Streets, Chicago.

Fine Tools Priced Low!

GERMAN PATTERN GIMLET BITS

4-X-5559. The finest gimlet bits manufactured. Special high grade steel, properly tempered, especially adapted to those who work in hard woods. Sizes, 2-32, 3-32, 4-32, 5-32, 6-32, 7-32, 8-32, 10-32. State size. Any size. Each **18c**

SCREW DRIVER BITS



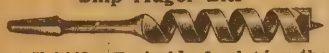
4-X-5525. High Grade Tempered Crucible Steel.

	Small	Medium	Large	Extra
Price ..	16c	18c	20c	22c

REVERSIBLE COUNTERSINK AND DOWEL POINTER

4-X-5523. Reversible Head. Can be used for sharpening pins or dowels. Cutter made of high grade tool steel. Price, each..... **15c**

Ship Auger Bits



4-X-5449. Desirable for boring the toughest hardwoods, knotty timber and end boring. Made of double refined steel, finely finished. **Fully guaranteed. Have 4 to 6 inch twists.**

Size, inches ..	¼	5/16	⅜	7/16
Price, each...	56c	57c	58c	59c
Size, inches ..	½	9/16	⅝	11/16
Price, each...	60c	70c	71c	84c
Size, inches ..	¾	13/16	⅞	15/16	1
Price, each...	86c	98c	$1.00	$1.12	$1.15

Clark's Pattern Expansive Bit

Cutters are made of high grade tool steel properly tempered. Great care is taken in the fitting of this tool, and it is **guaranteed to give satisfactory service.**

4-X-5509. Small Size Clark's Pattern Expansion Bit. With two cutters, one boring from ½ to ⅞ inch; the other from ⅞ to 1½ inches. Price..... **$1.35**

4-X-5511. Large Size Clark's Pattern Expansion Bit. With two cutters, one boring from ⅞ to 1¾ inches; the other from 1¾ to 3 inches. Price..... **$1.90**

4-X-5513. Extra Cutters for Small Size Clark's Pattern Expansive Bit.

Size No. 1. Cuts from ½ to ⅞ inch. Price.....25c
Size No. 2. Cuts from ⅞ to 1½ inches. Price.....30c

4-X-5515. Extra Cutters for Large Size Clark's Pattern Expansive Bit.

Size No. 3. Cuts from ⅞ to 1¾ inches. Price.....40c
Size No. 4. Cuts from 1¾ to 3 inches. Price.....45c

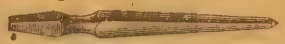
Jenning's Pattern Solid Center Extension Lip Auger Bits

Solid Center Auger Bits. Extreme care is taken in the manufacture of these bits. Each bit is carefully tempered and absolutely straight and true to size. Each bit is hand forged from double refined crucible steel, properly tempered, full length of twist. Highly finished and **fully guaranteed.**

4-X-5433. Jennings Solid Center Extension Lip Auger Bits.

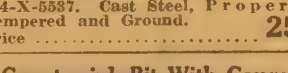
Size, inches.....	¼	5/16	⅜	7/16	½	9/16
Price, each.....	47c	48c	49c	50c	51c	56c
Size, inches.....	⅝	11/16	¾	13/16	⅞	15/16	1
Price, each.....	57c	66c	67c	76c	78c	89c	90c

Square Reamer Bits



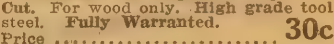
4-X-5537. Cast Steel, Properly Tempered and Ground. Price **25c**

Countersink Bit With Gauge



4-X-5533. To Regulate Depth of Cut. For wood only. High grade tool steel. **Fully Warranted.** Price **30c**

Car Bits



4-X-5451. For boring heavy timbers. Used by bridge builders and millwrights. Length of twist 12 in.

Size, inches ..	¼	5/16	⅜	7/16
Price, each...	84c	85c	86c	93c
Size, inches ..	½	9/16	⅝	11/16
Price, each..	$1.05	$1.17	$1.28	$1.40
Size, inches ..	¾	13/16	⅞	15/16	1
Price, each.	$1.52	$1.64	$1.77	$1.91	$2.05

Common Pattern Auger Bits

4-X-5401. Common Pattern Double Spur Standard Auger Bits.

Size, inches...	¼	5/16	⅜	7/16
Price, each...	35c	36c	37c	38c
Size, inches...	½	9/16	⅝	11/16
Price, each...	39c	42c	43c	49c
Size, inches...	¾	13/16	⅞	15/16	1
Price, each...	50c	57c	58c	67c	68c

Premier Single Twist Extension Lip Auger Bits

For rapid and easy boring in any kind of wood. Specially designed for work in the toughest hardwoods, knotty timber and end boring. Will bore more rapidly and with greater ease than other style of auger bit made. The open twist affords ample clearance for the chips and cannot choke up. Made by highly skilled workmen. Tempered and finished in the finest manner and each bit is carefully tested and **fully guaranteed.**

4-X-5441. Premier Single Twist Extension Lip Auger Bits.

Size, inches	¼	5/16	⅜	7/16	½	9/16
Price, each.....	48c	49c	50c	51c	52c	57c
Size, inches	⅝	11/16	¾	13/16	⅞	15/16	1
Price, each.....	58c	67c	68c	77c	79c	90c	91c

Premier Jennings' Pattern Extension Lip Auger Bits

The Best Jennings' Pattern Extension Lip Auger Bit Manufactured. Can be used for boring hard or soft wood and will bore through without splitting the wood. We recommend these bits for mechanics' use. **Properly tempered, full length of twist.** Lips are carefully forged and **sharpened and will cut faster and outwear any other JENNINGS' PATTERN bit manufactured.** Bit is perfectly straight and true to **size. Full polished finish.**

4-X-5425. Premier Jennings' Pattern Extension Lip Auger Bits.

Size, inches	¼	5/16	⅜	7/16	½	9/16	⅝
Price, each.....	38c	39c	40c	41c	42c	46c	47c
Size, inches	11/16	¾	13/16	⅞	15/16	1	
Price, each.....	54c	55c	64c	65c	74c	75c	

"Perfect" Handle Screwdriver

4-X-5541. Will Stand More Abuse Than Any Other Screwdriver Made. The Only Screwdriver that can be used as a Hammer, to force point of screw into the wood. The blade, bolster handle, flattened hammer hand are drop forged from one piece of the toughest steel that can be made, the handles being pocketed on each side of the drop forging in such a manner and so securely that they cannot be split or broken off. Is properly balanced and perfectly tempered. **Fully warranted. There is absolutely nothing better made.**

Length of blade, inches.....	4	6	8	10
Price, each	32c	45c	60c	75c

Indestructible Square Shank Screwdriver

4-X-5543. For Mechanics' use. Square shank for use with wrench for tightening or loosening screws or other heavy work. Blade, shank and head are forged from a solid piece of high grade tool steel. Shank extending through handle is flattened, forming a cap, making it impossible to turn, or the handle to come off. The steel ferrules are put on under heavy pressure and are guaranteed to remain in place. Handles are selected hardwood, ebonized finish.

Each tool warranted to give entire satisfaction or money refunded.

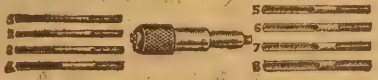
Length of blade, inch.	2½	4	6	8	10
Size sq. shank, inch..	3/16	¼	5/16	11/32	⅜
Price, each.....	24c	30c	42c	58c	65c

Genuine Champion Screwdriver

4-X-5545. A favorite of many year's standing. Blades are forged from the highest grade steel, properly tempered and fastened securely in handle and cannot pull out. Selected hardwood handle, cherry finish.

Length blade, Inches ...	3	4	5	6	8	10
Price, ea..	23c	26c	29c	36c	47c	60c

Drill Attachment for Goodell's Interchangeable Screwdrivers

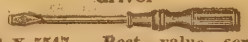


Can be readily applied to Goodell's Interchangeable Screwdrivers, converting the driver into an automatic drill, thus combining two tools in one.

4-X-5553. Fitting Automatic Screwdriver, No. 4-X-5549. Price for chuck and eight drill points..... **90c**

4-X-5555. Fitting Reversible Screwdriver, No. 4-X-5551. Price for chuck and eight drill points..... **90c**

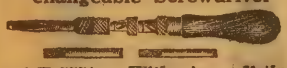
Champion Pattern Screwdriver



4-X-5547. Best value screwdrivers ever offered at the price. Blades are forged from high grade crucible steel. Selected hardwood handles, steel ferrules. **Guaranteed to give excellent satisfaction.**

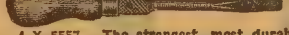
Length blade, Inches	10	12
Price, each.....	25c	30c

Goodell's Reversible Interchangeable Screwdriver



4-X-5551. With two distinct spirals. For driving and drawing screws automatically. Finished hardwood handle, furnished with three forged steel bits; length extended, 16½ inches; length closed, 9 inches. Price **$2.25**

Goodell's Ratchet Screwdriver



4-X-5557. The strongest, most durable ratchet screwdriver on the market. Blades, dogs and spring, which make up the ratchet mechanism, made of a high grade tool steel. The ratchet teeth are deeply cut directly into the stem. Changes from right to left are made by simply turning the knurled ferrule. **Each tool fully warranted.** Length blade,

Inches	4	5	6	8	10
Price, each.	80c	84c	94c	$1.02	$1.10

Goodell's Automatic Interchangeable Screwdriver

4-X-5549. Can be used as a spiral ratchet or plain screwdriver. Practical, strong, durable tool. Will not get out of order. Furnished with three forged steel bits. Selected finished hardwood handle. Length extended, 14 inches. Length closed, 7½ inches. Price **$1.45**

Perfection Hand Drill

4-X-5457. Strong Malleable Frame. Steel spindle, cut gears and hollow cut cocobola handle containing 8 drill points 1/16 to 11/64 inch. A strong, durable tool, nicely finished. Length 10½ inches. Price, **including 8 drill bits..... $2.50**

Nail and Staple Pullers, Pliers and Punches

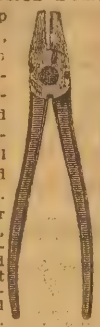
NAIL PULLER

This nail puller has forged tempered steel jaws, hardened and oil tempered. Gets the nails out so they can be used again. 4-X-6125. Price, each..... **$1.15**

PREMIER STAPLE PULLER

This high grade Staple Puller, made in the most careful manner from the highest grade tool steel, each tool is properly shaped to fit the hand, and not cause the operator's hand to cramp. One of the most rapid staple pullers on the market. This is the best three joint Staple Puller made, nicely finished. 4-X-6101. Length 10 inches. Price..... **$1.28**

DROP FORGED PLIERS



Drop Forged, Button Plier, carefully tempered and nicely finished, will hold and cut wire. Has four cutters, perfect cutting and the most useful article for all purposes. 4-X-6107. Price per pair, 6", 64c; 8", 70c; 10", 83c.

Perfection Side Cutting Plier, forged from the highest grade tool steel, raised cutting edges, with cutting quality, used daily in Electrical trade. Strong and durable and guaranteed to give satisfactory service.

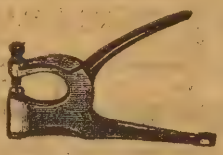
4-X-6137

Price per pair, 6", 72c.

COMBINATION PUNCH AND RIVETER

An absolute necessity to the farmer, liveryman, teaming contractors and any one who in any way has a harness or straps to repair, punches or rivets on the downward stroke. A good substantial tool made of the toughest grade iron, tempered steel punch, adjustable rivet set for tubular or split rivet, with hand finish or polished handle. 4-X-6141. Price each..... **$1.20**

HANDY LEVER RIVETER



For tubular rivets only, the screw is on the lever, pull down the lever, the hole is punched and the rivet is clinched. Both done in one operation. 4-X-6147.

Price each **49c**

TUBULAR RIVETS

4-X-6152. Put up in boxes of ¼", price per box, 9c; price per doz. boxes, 95c.

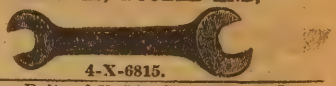
4-X-6151. Same as above, put up in 100 sizes only, in box. Price per box: 3/16", 15c; ¼", 16c; 5/16", 17c; ⅜", 18c; 7/16", 19c; ½", 20c; 9/16", 22c; ⅝", 23c; 11/16", 24c; ¾", 25c.

STEEL ALLIGATOR WRENCH

4-X-6839. Can be used for Pipes, Bolts or Nuts up to ½-inch in diameter. Each **10c**

ENGINEERS' DROP FORGED STEEL WRENCHES, DOUBLE END,

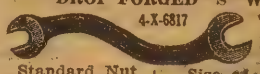
BLOCK FINISH



4-X-6815.

Size No.	Size Bolts of U. S. Standard Nuts	Extreme Length	Price Each
23	3/16 to ¼	4 inch	$0.14
25	¼ to 5/16	4⅞ inch	.17
26	¼ to ⅜	5⅞ inch	.21
27	5/16 to ⅜	5⅞ inch	.22
29	⅜ to 7/16	6⅞ inch	.25
30	⅜ to ½	7¾ inch	.30
31	7/16 to ½	7¾ inch	.31
34	½ to ⅝	9¾ inch	.47
37	⅝ to ¾	11⅜ inch	.67
38	⅝ to ⅞	13½ inch	1.00
39	¾ to ⅞	13½ inch	1.02
40	¾ to 1	15½ inch	1.39
41	⅞ to 1	15½ inch	1.40

DROP FORGED "S" WRENCHES



4-X-6817

This wrench is of long light pattern designed for use on agricultural machinery.

Standard Nut Size Bolt	Size of Opening	Extreme Length	Price Each
3/16 and ¼	⅜ and ½	6¼	$0.17
¼ and 5/16	½ and ⅝	7⅛	.24
5/16 and ⅜	⅝ and ¾	8¼	.29
⅜ and 7/16	¾ and ⅞	9¼	.38
7/16 and ½	⅞ and 1	10⅜	.50

4-X-6819. Price per set of five wrenches. $1.58

DROP FORGED GRIP WRENCH

4-X-6835. Made of Special High Grade Tool Steel. Will grip any surface, round or square, from ¼ to 1 inch in diameter. Has 3 dies in center suitable for re-threading bolts that have damaged threads. Will re-thread bolts sizes 5/16, ⅜, ½. Price, each..... **45c**

DOUBLE END HANDY WRENCH

4-X-6837. Drop Forged Tool Steel. Properly tempered, polished and nickel plated. Suitable for pipe, bolts and nuts.

Size No.	1	2	2½	3
Takes, inch	¼ to ¾	¼ to 1¼	¼ to 1½	¼ to 2¼
Price	33c	44c	66c	$1.00

Lodi Cutting Pliers, for cutting soft steel wire only. Made of good grade steel, nicely finished and polished.

4-X-6121.

Price, each,

5" 12c
6" 16c

Lodi Flat nose pliers, made of good grade steel, light and very strong, nicely polished. A very good tool at this low price.

4-X-6117.

Price, each,

4" 6c
5" 9c
6" 11c

GAS PLIERS

Best grade drop forged gas pliers. Carefully tempered and fitted with polished jaws.

4-X-6113.

Price, per pair,

7" 44c
8" 50c

Carpenters' Pliers, forged from tool steel, properly tempered, polished jaws, claw on one handle, screw driver on the other.

4-X-6133.

Price per pair,

6" 36c
8" 47c
10" 60c

Cast Steel Spring Punch. Single tube, special tempered steel tubes, length 8", tube sizes 4, 6, 8, 10. Mention size when ordering.

4-X-6143.

Price, each 54c

Four tube revolving punch, full polish, special tempered tubes, each of different size, length over all 8", fully warranted.

4-X-6145.

Price, each 94c

Paragon Reservoir Punch, has a reservoir to retain the clippings. Fully nickel plated for card parties, and various affairs.

4-X-6123.

Price, each 35c

Six tube revolving punch. Special tempered, spring and steel tubes, six different size tubes, fully polished, length over all 8".

4-X-6149.

Price, ea.. $1.25

Flat Nose Plier, forged from crucible steel, nicely finished. 4-X-6129.

4" 49c
5" 54c
6" 61c

Utility Wire Cutting Plier, made of good quality steel, and nicely polished.

4-X-6119.

Price,

5½" 15c

Long Chain Nose Side Cutting Plier, for jewelers, electricians, etc.

4-X-6135.

Length in in. 6
Price $1.15

A standard Button Plier, Drop forged. Has three cutters.

4-X-6111.

6" 50c
8" 67c
10" 81c

Fencing Plier, can be used as a hammer, plier, wire cutter and staple puller.

4-X-6105.

Price, each.... 60c

Combination Fencing Plier, combines all tools, hammer, staple puller, wire plier, etc.

4-X-6103.

Price $1.19

Combination Plier, wire cutter, screw driver and wrench. Nickel plated finish.

4-X-6109.

6½" 35c

If you cannot find just what you need—write us

Woodworkers' Supplies at Interesting Prices!

Sliding "T" Bevels

4-X-5745. Brass tipped, solid rosewood handle. For right or left hand use.

Lgth. ins.	6	8	10	12
Prc.	49	55	59	64c

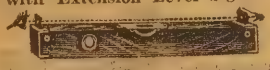
Pocket Level

4-X-5737. Can be readily attached to steel square or straight edge. Iron body, brass top plate, proved glasses. Warranted true. Price..... **13c**

Polished Cherry Plumb and Level

4-X-5715. Brass arch top plate, two side views, proved glasses. Fully warranted. Lengths, 26, 28 and 30 inches. State length wanted. Price **$1.05**

Adjustable Cherry Plumb and Level with Extension Level Sights



4-X-5731. When not in use the sides are depressed flush with the surface of the level and raised into position by merely pressing the button. The sights are accurately adjusted and may be relied upon to extend the horizontal line to any distance required. The level is highly polished and has brass arch top plate, brass tipped side views and heavy brass ends. Length, 28 inches. Price..... **$3.10**

Zig Zag Folding Rules

4-X-5821. Spring joints. Yellow finish, black markings, metal tips.

Length, feet	3	4	5	6
Price	29c	39c	59c	60c

Three Foot Four-Fold Rule

4-X-5815. Arched joints, middle plates. Spaced 8ths and 16ths **49c**

Steel Measuring Tapes

4-X-5835. Used by Contractors, Builders and others who require a reliable tape for outside work. Can be used in damp or wet places without injury and will not stretch. The most satisfactory and accurate tape manufactured. Hard leather case, securely stitched. Handle folds flush with case. Marked in feet, inches and 8ths of inches.

Length, feet	50	75	100
Price, each	$5.60	$7.30	$9.50

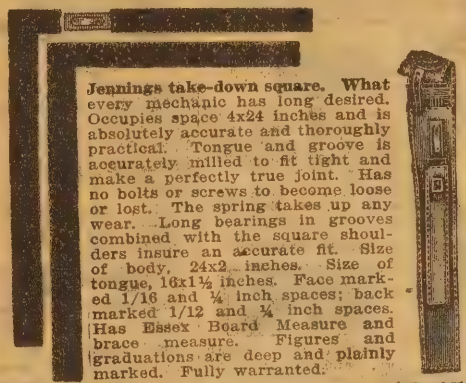
Steel Bar Eccentric Clamps

4-X-5859. For Cabinet Makers' use. Heavy steel bar, quick adjusting. Size

inches	12	18	24	30	36	48
Price	$1.26	$1.47	$1.68	$1.89	$2.10	$2.52

4-X-5703. No. 100C. Copper finished steel square, heavily copper plated, practically rust-proof; hardened steel corners; figures and graduations are white enamel and stand out clear and distinct. Size of body 24x2 in., size of tongue 16x1½ in.; face marked 1/16, ⅛ and ¼ in. spaces; back marked 1/100, 1/32, ½, 1/10 and ¼ in. spaces. Has Essex board measure, eight square and brace measure; fully warranted. Price **$2.60**

Jennings Take-Down Square

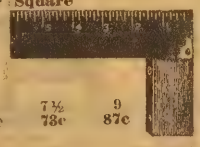


Jennings take-down square. What every mechanic has long desired. Occupies space 4x24 inches and is absolutely accurate and thoroughly practical. Tongue and groove is accurately milled to fit tight and make a perfectly true joint. Has no bolts or screws to become loose or lost. The spring takes up any wear. Long bearings in grooves combined with the square shoulders insure an accurate fit. Size of body, 24x2 inches. Size of tongue, 16x1½ inches. Face marked 1/16 and ¼ inch spaces; back marked 1/12 and ¼ inch spaces. Has Essex Board Measure and brace measure. Figures and graduations are deep and plainly marked. Fully warranted.

4-X-5725. Blued finish with canvas case **$3.45**

4-X-5727. Polished finish with canvas case **$3.20**

Combined Try and Miter Square



4-X-5741. Brass lined rosewood handle, steel blade. Graduations plainly and accurately marked. A first class mechanics' tool, fully warranted. Size represents length of blade.

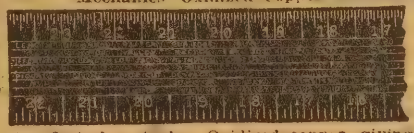
Size, inches	4½	6	7½	9
Price	47c	64c	73c	87c

Metal Try Squares

4-X-5743. A first class tool at a moderate price. Steel blade, graduations accurately marked. Nickel plated iron handles, fully warranted. Size represents length of blade.

Size, inches	6	8	10	12
Price	64c	74c	93c	$1.10

Mechanics' Oxidized Copper Finished Square



4-X-5701. No. 100 R. O. C. Oxidized copper finished square. Will please any mechanic who appreciates first-class tools. Oxidized copper, giving it the appearance of a gun metal finish and is the best rust resisting finish known. The graduations and figures are white enamel, clear and distinct. Has hardened corners, which will not wear round when used for making spaces. Body 24x2 in., size of tongue 16x1½ in., marked on face, 1/16, ⅛ and ¼ spaces; on back, 1/32, 1/12 and 1/10 spaces. Has brace measure, eight square, 1/100 scale and rafter table for buildings of any width or pitch and as shown in illustration; furnished complete with directions. Price..... **$3.05**

Wrought Iron Bench Screws

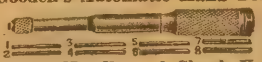
4-X-5847. Lathe cut threads, movable collars. Furnished with hardwood handles. The best iron bench screw made.

Diam. ins.	1	1⅛	1¼	1½
Lgth. ins.	16	16	17	19
Price, each	67c	81c	98c	$1.50

Cabinet Makers' Clamp Attachment

4-X-5869. Cabinet Makers' Clamp Attachment. Will fit wood bar 1⅜x2½ inches. Can be used on bar of any length. Used by carpenters and cabinet makers. Fitted with ⅜ inch screw and crank handle. Price, without bar, each.. **$1.05**

Goodell's Automatic Hand Drill

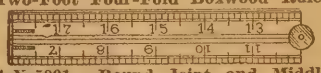


4-X-5853. Handle and Chuck Knurled. Entire tool finely finished and heavily nickel plated. Drill points are contained in separate numbered compartments in hollow handle. The cap through which the drill points are extracted is smooth and solid and properly shaped. Drill points are so milled that when properly fastened in chuck they cannot be pulled out when in use. Price includes 8 drill points, 1/16 to 11/64 inch. Length 10½ inches. Price..... **$1.85**

Goodell's Automatic Hand Drill

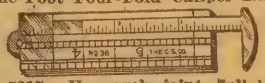
4-X-5861. Dull Nickel Plated Finish, Cocobola Handle. Knurled chuck. Length 10 inches. Price includes 8 drill points from 1/16 to 11/64 inch. Price..... **$1.60**

Two-Foot Four-Fold Boxwood Rules



4-X-5801. Round Joint and Middle Plates. Spaced 8ths and 16ths **20c**

One-Foot Four-Fold Caliper Rule



4-X-5817. Has arch joint, full brass bound. Spaced 8ths, 10ths, 12ths and 16ths..... **60c**

Six-Inch Two-Fold Caliper Rule

4-X-5819. Square joint. Spaced 8ths, 10ths, 12ths & 16ths. Width, ⅞ inch. Price **37c**

Level Sights

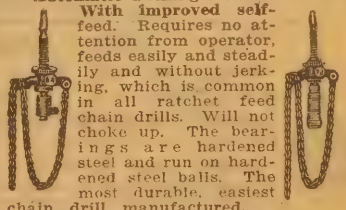
4-X-5757. Can be readily attached to any wood level. With which the user has accurate means of leveling from one given point to another at a long distance. Price, per pair..... **84c**

4-X-5758. Level sights for iron levels. Price, per pair..... **84c**

Mason's Plumb and Level

4-X-5733. High grade level for brick and stone masons. Is adjustable. Has brass arch top plate, two side views and can be used with plumb bob and line. Price **$1.25**

Automatic Drilling Attachment



With improved self-feed. Requires no attention from operator, feeds easily and steadily and without jerking, which is common in all ratchet feed chain drills. Will not choke up. The bearings are hardened steel and run on hardened steel balls. The most durable, easiest chain drill manufactured.

4-X-5855. For drills ½-inch round shank. Price..... **$2.45**

4-X-5857. With universal bit brace chuck for holding square taper shank or bit stock drills. Price **$3.45**

Cabinet Makers' Steel Bar Clamps

4-X-5867. Has Heavy "T" shaped steel bar. Size, 1½ by 3/16 inches. ⅝ inch wrought screw and malleable castings. The best and strongest bar clamp made.

Opens, feet	2½	3	4	5
Price, each	$5.75	$6.15	$6.95	$7.70

Stonemasons' Bricklayers' and Plasterers' Tools

SPAULING HAMMERS

Single Face — Double Face

Solid cast steel. Polished faces. Handles not included. Either single or double face, same price.

4-X-6218. Single face.
4-X-6215. Double face.

Weight, 3½	pounds.	Each	$ .80
Weight, 4	pounds.	Each	.90
Weight, 5	pounds.	Each	.95
Weight, 6	pounds.	Each	1.08
Weight, 8	pounds.	Each	1.43
Weight, 10	pounds.	Each	1.80

STRIKING OR DRILLING HAMMERS

4-X-8217. Solid cast steel. Polished faces. Handles not included.

Weight, 3½	lbs.	Ea.	$ .63
Weight, 4½	lbs.	Ea.	.82
Weight, 5	lbs.	Ea.	.60
Weight, 6	lbs.	Ea.	.74
Weight, 8	lbs.	Ea.	.98
Weight, 9	lbs.	Ea.	1.10

STONE SLEDGES

4-X-6251. Solid cast steel. Polished faces. Handles not included.

Weight, 8	lbs.	Ea.	$1.15
Weight, 10	lbs.	Ea.	1.35
Weight, 12	lbs.	Ea.	1.62
Weight, 14	lbs.	Ea.	1.90
Weight, 16	lbs.	Ea.	2.15

MASONS' HAMMERS

4-X-6253. Finest tool steel, properly tempered. Bronzed finish, polished edge and face. Handle not included.

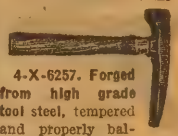
Wt., 3½	lbs.	Ea.	$ .97
Wt., 4	lbs.	Ea.	1.10
Wt., 4½	lbs.	Ea.	1.25

BRICK CHISELS

4-X-6255. Solid cast steel. ⅞-inch octagon handle, 4-inch blade.

Price 65c

BRICK HAMMER



4-X-6257. Forged from high grade tool steel, tempered and properly balanced. Guaranteed to be strictly first class. Weight of hammer, 2 pounds. Fitted with 12-inch selected handle.

Price $1.45

EXTRA BROAD LEATHER HANDLE TROWELS

4-X-6221. Hammered from solid bar crucible cast steel, carefully tempered and properly ground. Made to stand rough usage. Guaranteed to suit the most critical bricklayer. 11-inch size is about 6 inches wide; other sizes in proportion.

Inch ..	10	10½	11
Each ...	$1.15	$1.25	$1.35

SUPERIOR PHILADELPHIA PATTERN TROWEL

4-X-6223. Hammered from solid bar crucible steel, properly tempered tapering from heel to point. Ground smooth. Best trowel of its kind made.

Inch ..	10	10½	11
Each ..	$1.00	$1.05	$1.10

STANDARD PHILADELPHIA PATTERN BRICK TROWEL

4-X-6219. Made of high grade steel, well finished, properly shaped and fully guaranteed.

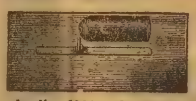
Inch	10	10½	11
Each ...	64c	66c	68c

STANDARD POINTING TROWELS

4-X-6259. Hammered from a solid bar best quality cast steel. Properly tempered and accurately ground.

Inch	4	5	6
Each ...	25c	28c	32c

CINCINNATI PLASTERING TROWELS



4-X-6261. Guaranteed to suit the most critical workman. Hammered from a solid bar highest crucible steel, tempered tough and hard. Accurately ground. Guaranteed to be the best plastering trowel made.

Inch ...	10½	11	12
Each ..	$1.00	$1.05	$1.20

STANDARD PLASTERING TROWEL

4-X-6263. High grade crucible steel. Properly tempered and nicely finished. Fully guaranteed.

Inch ...	10	11	12
Each ...	49c	63c	70c

CORNER TROWELS

4-X-6225. High grade crucible cast steel. Properly tempered and polished. Length, 6 inches.....58c

TUCK POINTING TOOL

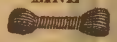
4-X-6229. Used by masons and bricklayers for pointing or beading mortar or cement. Furnished in the following sizes: 3/16, ¼, 5/16, ⅜ and ½. State size wanted.....54c

CORK FLOATS

4-X-6231. Solid, selected cork. Finished smooth on both sides.

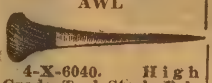
Inch	12x4x1	12x5x1¼
Each	40c	55c

BRAIDED CHALK LINE



4-X-6042. Extra White Cotton. In 20-foot hanks, one dozen hanks connected. Price per dozen hanks. $1.25
Price for 3 hanks .35

SOCKET SCRATCH AWL



4-X-6040. High Grade Tool Steel, Polished Beech Handle.

Price 12c

BEECHWOOD CHALK LINE REEL AND STEEL AWL

4-X-6041. Price, complete as per illustration 14c

SEAMLESS COPPER PLATED STEEL OILERS

4-X-6019. Heavily Copper Plated Inside and Out. Will give equally as good service as the all copper oiler, and at less than half the cost. Made with spring bottoms; 9 inch nozzles are bent, other sizes are straight.

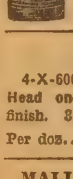
Size No.	Diam. Bottom, Inches	Length Nozzle, Inches	Price, Each
13	3⅝	3	19c
14	3⅝	9	22c
14A	3¾	8	26c
14B	3¾	9	32c

ZINC OILERS

4-X-6021. Double Seam Bowls. Guaranteed Not to Leak. Spout has spun screw coarse round thread. Can be easily removed to fill bowl. Workmanship and quality of material are superior to any other oilers.

Size No.	Diameter Inches	Length Spout	Price Each
1	2⅝	2	5c
2	3 3/16	4	7c
3	3¾	4	8c
5	4½	5	10c
6	4¾	5	14c

MOWING MACHINE OILERS



4-X-6023. Tin Oiler, 4¼ inch bent spout 15c

4-X-6025. Tin Oiler, 4¼ inch straight spout 12c

4-X-6027. Copper Plated Steel Oiler, 4¼ inch straight spout.....20c

QUILT FRAME CLAMPS

4-X-6067. Ball and Socket Head on Screw. Japanned finish. 3-inch opening.

Per doz...$1.15 Each....10c

MALLEABLE CLAMPS WITH STEEL SCREWS

4-X-6069. Made with Swivel Head. Steel screw with cut threads. Strongest and best clamp made. Opens, In. .. 3 4 5 6 8 10
Price 41c 53c 65c 85c 1.25 1.80

Cement Tools

SIDEWALK GROOVERS

4-X-6275. Nickel plated iron. 6 inches long, 2⅞ inch wide. Smoothly finished..49c
4-X-6277. Solid Bronze Metal. 6 inches long, 2⅞ inches wide.....$1.12

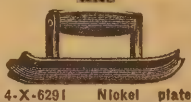
SIDEWALK EDGERS

4-X-6271. Nickel plated iron. ⅜-inch radius, 6 inches long, 2⅞ inches wide....49c
4-X-6273. Solid bronze metal. ⅜-inch radius, 6 inches long, 3 inches wide.....$1.12

SIDEWALK CENTERS

4-X-6279. Nickel plated iron. 6 inches long, 2⅞ inches wide.....49c
4-X-6281. Solid bronze metal, 6 inches long, 3 inches wide $1.12

DRIVEWAY GROOVERS



4-X-6291 Nickel plated iron. 6 inches long, 2⅞ inches wide 49c
4-X-6293. Solid bronze metal, 6 inches long, 2⅞ inches wide $1.12

IRON TAMPER

4-X-6269. Gray cast iron. Smooth finish. Size of face, 8x8 inch. Fitted with 4-foot hardwood handle 18 lbs. .$1.15

INDENTATION ROLLERS

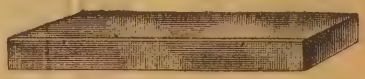
For roughening or indenting sidewalks. 4 inch diameter, 10 inch long.

4-X-6265. Iron, oxidized indentation roller . .$2.80

FLOORING CLAMP

4-X-6057. A great labor saving device. For laying flooring. Can be used to decided advantage in laying warped or crooked floors. Will pay for itself on a single job. Price.....83c

HIGH GRADE OIL STONES
For Mechanics' Use



EAGLE LAKE OIL OR WATER STONE

4-X-6007. Genuine Eagle Lake Oil or Water Stone. Preferred by many on account of its extreme softness and uniformity of grit. Contains no hard spots and gives unusually good satisfaction, having a good sharp grit and can be used with either oil or water. Unmounted.

Size of Stone.....	6x2x1	7x2x1	8x2x1
Price, each.....	13c	16c	20c

QUICK AND EASY TOOL STONES

In Our Quick and Easy Oil Stones We Have Unquestionably the Finest and Most Perfect Artificial Stone on the Market. For putting an edge on any kind of edge tools, either mechanics or household. It is unequalled by any. As the name implies, it does its work quickly and easily as well as perfectly. Unmounted.

4-X-6011. Size of stone.....	6x2x1	8x2x1
Price, each.....	32c	47c

SHINGLING BRACKETS

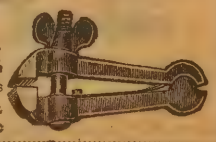
4-X-6063. Strong and durable. Easily put up and taken down. Require no nails or screws.

Each 30c

CLAPBOARD OR LAP SIDING MARKER

4-X-6071. ½-inch movement Marks a full line across the clapboard, exactly over edge of corner board. Adjustable to take up the wear of teeth. Great labor saving device. Price.....48c

HAND VISE



4-X-6075. Cast Steel, Polished Jaws. Size 4½ inches. Width of jaws 1¼ inches. Will open ⅞ inch. Price.....39c

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

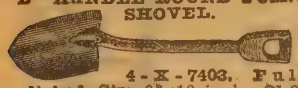
Premier Shovels, Spades and Scoops

Strong and durable. Made of high grade shovel steel. Selected handles. Best ever offered for general purposes. Fully warranted.

"D" HANDLE SQUARE POINT SHOVEL.

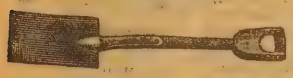
4-X-7401. Plain back, full Polished. Sizes 9¾x12 inch. $1.28

"D" HANDLE ROUND POINT SHOVEL.



4-X-7403. Full polished. Size 9¾x12 inch. . $1.28

"D" HANDLE SQUARE POINT SPADE



4-X-7405. Plain back, full polished. Size 7½x12 inch. . $1.28

"D" HANDLE GRAIN SCOOP.

4-X-7407. Western Pattern hollow back. Full polished.

Size, No...	6	7	8	9	10
Length, in.	16½	17	17½	18	19
Price	$1.58	1.75	1.80	1.85	1.90

"D" HANDLE COAL SHOVELS

4-X-7409. Hollow back. Natural Forge Finish.

Size, in.	13½x14	14¼x14½	14¾x15½
Price...	$1.32	$1.40	$1.48

"D" HANDLE STEEL DRAIN SPADE.

4-X-7411. Strongly made to Stand rough usage. Length 18 inch. Full polished. Price $1.80

STEEL DITCHING OR TILING SPADES.

4-X-7413. Specially adapted for mucky and sticky soil. Fully warranted. Size 6x18 inch. $2.15

"D" HANDLE COKE FORKS.

Superior quality. Oval tines. Fully warranted.

4-X-7415. 10 tines, 16¾ inch long, 14½ inch wide. $2.05

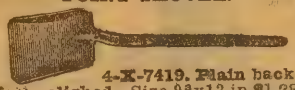
4-X-7416. 12 tines, 17½ inch long, 17½ inch wide. $2.39

CAST IRON POST MAULS.

4-X-7417. Full weight, with 3-foot hickory handles.

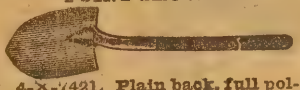
Wt., lbs.	10	13	16	18	20
Price..	78c	94c	$1.05	$1.16	$1.25

LONG HANDLE SQUARE POINT SHOVEL.



4-X-7419. Plain back, full polished. Size 9¾x12 in. $1.28

LONG HANDLE ROUND POINT SHOVEL.

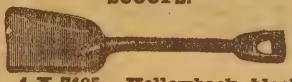


4-X-7421. Plain back, full polished. Size 9¾x12 inch. $1.28

LONG HANDLE SQUARE POINT SPADE.

4-X-7423. Plain back, full polished. Size 7½x12 inches. $1.28

"D" HANDLE FURNACE SCOOPS.



4-X-7425. Hollowback, black finish. Size 9x14 inches. . . . 95c

STEEL SNOW SHOVELS.

4-X-7427. Long handle. Light, strong and durable. Makes an excellent general purpose shovel. Superior quality. **Fully warranted** 95c

"D" HANDLE STEEL POST HOLE SPADE.

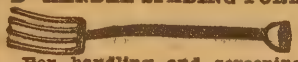
4-X-7429. Strongly constructed. Full polished. Concave blade. 6 inches at point, length 18 inches $1.80

STEEL TILE DRAIN CLEANER.

4-X-7431. Adjustable. Handle can be placed at any angle by adjusting the spring. When the spring is in position the blade is locked tightly and will not move or have a side motion. Blades are concave.

Size of blade 4x15 inch. . . . $1.05
Size of blade 5x15 inch. . . . 1.10
Size of blade 6x15 inch. . . . 1.20

"D" HANDLE SPADING FORK



For handling and screening dirt from potatoes, heavy beets and other vegetables. Special crucible steel tines.

4-X-7433. Plain Ferrules. 95c
4-X-7434. Strapped Ferrules $1.20

"D" HANDLE SCOOP FORK

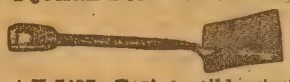
4-X-7435. For handling and screening dirt from potatoes, beets and other vegetables. Special crucible steel tines.

8 tines, 11 in. wide, 14 in. long $1.70
10 tines, 14 in. wide, 15 in. long 2.05
12 tines, 18 in. wide, 16 in. long 2.38

Premier Shovels and Spades

Superior in quality, workmanship and material. Guaranteed to be the best shovels it is possible to produce.

PREMIER "D" HANDLE SQUARE POINT SHOVEL.



4-X-7437. Best crucible steel solid socket, full polished blade, 9¾x12 inch. $2.15

PREMIER LONG HANDLE ROUND POINT SHOVEL.

4-X-7441. Best crucible steel solid socket, full polished blade, 9¾x12 inch. $2.15

PREMIER "D" HANDLE ROUND POINT SHOVEL.

4-X-7439. Best crucible steel solid socket, full polished blade, 9¾x12 inch. $2.15

PREMIER "D" HANDLE SQUARE POINT SPADE.

4-X-7443. Best crucible steel solid socket, full polished blade, 7½x12 inch. $2.15

Post Hole Diggers and Augers

EUREKA POST-HOLE DIGGERS.

4-X-7445. Nothing better of its kind made. 9-in. cast steel blade, properly tempered, malleable iron shank, selected split, hardwood handles. Length 5 ft. Weight about 9 lbs. . . . $1.50

INVINCIBLE POST HOLE DIGGER.

4-X-7447. Blade and shanks are drop forged from one solid piece of steel. Length of blade 9 inches. Fitted with selected hardwood handles. Length 5 feet. Weight about 9½ lbs. $1.55

Carpenters' Wrecking Bars

Three Sizes

Drop Forged

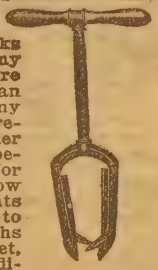
A handy, durable bar for nail pulling, ripping shingles, prying boards, etc., drop forged, ¾ inch octagon steel, claw on one end and wedge points on other. Length, 30 inches; shipping weight, 5 lbs.

4-X-2560. Price, each 39c
4-X-2561. 24x¾ in. Price 36c
4-X-2562. 12x½ in. Price 20c

Pick or Matlock Handles

4-X-6211. First grade. Length, 36 inch. 84c

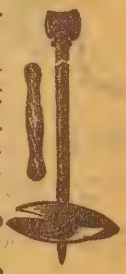
IWAN'S POST-HOLE AUGER.



4-X-7453. Works rapidly than any easy and more auger made. Can be used in any kind of soil, regardless whether wet or dry. Especially adapted for boring shallow wells. Weights range from 8¾ to 24 lbs. Lengths from 4 to 6 feet, depending on diameter of auger.

Size in.	6	8	9	10
Price...	$1.78	$1.92	$2.06	$2.40

VAUGHN'S POST-HOLE AUGERS.



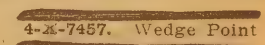
4-X-7455. Solid steel blades which can be replaced if they become broken. Height 44 in. Weight, about 7 lbs.

Size, in.	6	7
Price..	$0.95	$1.30

Size, in.	8	9
Price..	$1.35	$1.40

CROWBARS.

Solid crucible steel, tempered points properly balanced, full size and strength.



4-X-7457. Wedge Point

	4-X-7459. Pinch Point		
Llbs.	12	16	20
Each	$1.10	$1.40	$1.75

RAILROAD PICKS.

4-X-7461. Best quality cast steel, nicely finished, fully guaranteed. Wt. 5 to 6 lbs. 90c

ADZE EYE DRIFTING PICKS.

4-X-7467. Best quality cast steel, nicely finished.

Wt. lbs.	4	4½	5
Price	85c	90c	95c

MATTOCKS.

4-X-7463. Cast steel adze, eye, long cutter. Wt., 5 to 6 lbs. $1.00

4-X-7465. Short cutter mattock. Wt. 4½ lbs. 95c

PLUMBING AT 50 PER CENT SAVING. WRITE FOR CATALOG.

CYCLONE PORTABLE FORGE

$10.50

The best constructed and most durable low priced forge manufactured. For the farm and all light work.

The legs are made of ¾ inch pipe, firmly screwed into the hearth and are tied together, with wrought iron bands. The hearth is made of the best grade heavy cast iron fitted with an improved tuyere iron. The lever operates a segment gear on a ratchet which permits the reverse motion while the drive wheel on the same shaft revolves rapidly.

A leather Belt connects the drive wheel with the blower fan, the result is a strong lasting blast produced with very little energy.

We guarantee that this forge will give entire satisfaction.

DIMENSIONS:

Height of forge, 30 inches.
Diameter of hearth, 18 inches.
Depth of fire pan, 3¼ inches.
Diameter of fire case, 8 inches.
Weight about 85 pounds.

4-X-6501. Price with shield, as shown in illustration..... **$10.50**

4-X-6503. The same in every respect as the one described above except that it is provided with a steel hood for smoke pipe connection instead of a shield for outside work, as shown in illustration. Weight about 90 pounds.
Price..... $12,00

TORNADO PORTABLE FORGE.

While this forge is offered at an extremely low price it has not been slighted in its construction. Its durability is fully guaranteed.

$11.95

Construction: The material used is the very best. The legs are made of ¾ inch pipe, which screw firmly into the hearth and are tied together by wrought iron band to insure rigidity when in action. The lever operates a segment gear on a ratchet, which permits the reverse motion, while the drive wheel on the same shaft revolves rapidly. A leather belt connects drive wheel with the blower fan.

Your particular attention is called to the size of the hearth, which is 22 inches in diameter and 3½ inches deep. This is an extremely popular forge owing to the unusual size of the hearth, and we recommend it for all kinds of repair work.

DIMENSIONS:

Height of forge, 30 inches.
Diameter of hearth, 22 inches.
Depth of fire pan, 3½ inches.
Diameter of fan case, 8 inches.

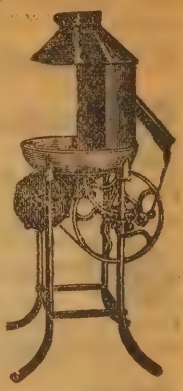
4-X-6511. Tornado Portable Forge Weight about 95 lbs..... **$11.95**

POSITIVE BLAST FORGE

Ball bearing fan shaft. Light Running, Positive and economical.

The fire place is separated from the hearth, saving breakage in expansion and contraction of parts.

The clutch is of a special design, which insures positive Blast. The boxes are provided with oil cup and the shafts are correctly fitted into the bearings. If these parts are properly lubricated they will last a life time. The oil cups are dust proof and self closing.



$17.95

Extra heavy construction: Note the weight of this forge. It is easily the best of its class ever offered. Recommended for repairmen, quarries, boiler makers, bridge builders, in mines, on farms and other places where light and medium smithing is done.

DIMENSIONS:

Height of forge, 30 inches.
Diameter of hearth, 22 inches.
Size of fan case, 9 inches.
Weight about 150 pounds.

4-X-6517. With shield Price..... **$17.95**

4-X-6519. With hood, as shown in il ustration $20.25

PERFECTION FORGE.

$26.95

Extra strong, well braced, honestly constructed for general shop work. No detail has been neglected in the construction of our **perfection forges.** Note how the legs are braced, which is absolutely necessary in the construction of a forge of this size.

The clutch is of special design and is positive in action. No lost motion. The blast is strong and will bring the work to a welding heat in less time than any other forge of similar construction.

The lever support is a swivel, which permits the lever to follow the motion of the arm.

Will heat iron 3 inches in diameter to a welding heat. For horseshoers, bridge builders, boiler makers and for general smithing.

We guarantee this forge to be heavier, better constructed and that it will do more satisfactory work than any other forge of its size on the market. The excellence of its construction justifies your paying any reasonable difference in price for this forge. **If not found entirely satisfactory can be returned at our expense.**

DIMENSIONS:

Height of forge, 30 inches. **Diameter of fan case,** 12 inches.
Size of hearth, 25x36 inches. **Weight,** 210 pounds.

4-X-6505. Price with shield..... **$26.95**
4-X-6507. Price with hood, as shown in illustration..... $29,75

LANCASTER BLOWER FORGE WITH WATER TANK.

$36.50

Designed for heavy smithing. No belts, ratchets or clutches. Equipped with **Ball Bearing Fan Shaft.**

We guarantee this forge to produce a hotter fire in less time than any other Blower forge on the market. The hearth is deep, the sides are lowered almost to a level with the tuyere for long shafts or forgings, working with a small fire. They will produce a steady, powerful blast. This style of forge is much superior to the bricked in forge. The hand blower is geared, the blast is strong and is blown direct into the tuyere. No belts, ratchet or clutches. The fan is large, being 12 inches in diameter. Both the blowe and fan being specially de signed, make this the best geared hand blower forge on the market All material and workmanship are of the very best.

Built without coal box, giving the operator the full size of the heartl for his tools and material. **Fitted with a water tank,** as shown in illustration, which can be used as a coal box, if desired.

DIMENSIONS:

Height 30 inches. **Diameter of fan,** 12 inches.
Size of hearth, 31x53 inches. **Weight** about 250 pounds.

4-X-6509. Price with water tank as shown..... **$36.50**

ANVIL TOOLS

Made of highest grade cast steel. Are full weight, properly tempered, well finished and the best that it is possibl to manufacture. **Your money back** on any tools not entirely satisfactory. **We guarantee a saving of 30 to 50**

BOTTOM SWAGES

4-X-6921.

In.	Wt. Lbs.	Ea.
¼	2⅛	26c
⅜	2⅛	27c
½	2⅛	28c
¾	2½	29c
⅞	2¾	33c
1	2⅞	35c
1¼	3	36c
1½	3½	42c

TOP SWAGES.

4-X-6943.

In.	Wt. Lbs.	Ea.
¼	2	23c
⅜	2⅛	26c
½	2¼	27c
¾	2⅜	32c
⅞	2¾	33c
1	2¾	34c
1¼	2⅞	35c
1½	3½	44c

BOTTOM FULLERS.

4-X-6983.

In.	Wt. Lbs.	Ea.
¼	2	25c
⅜	2½	26c
½	2½	27c
⅝	2¾	28c
¾	2⅞	35c
⅞	2⅞	36c
1	3	37c
1⅛	3	39c
1¼	3¼	41c

TOP FULLERS.

4-X-6981.

In.	Wt. Lbs.	Ea.
¼	2	26c
⅜	2⅛	29c
½	2¼	30c
⅝	2½	31c
¾	2¾	35c
⅞	2⅞	39c
1	3	41c
1⅛	3⅛	42c
1¼	3⅜	45c

SQUARE FLATTERS

4-X-6985.

Face In.	Wt. Lbs.	Ea.
2¼	2¼	27c
2½	2½	30c
3¼	3	41c
3¾	3¾	45c
4½	4¼	54c

STRAIGHT HARDIES

4-X-6923.

Shank, Inch	Wt.	Ea.
½	8 ozs.	10c
⅝	12 ozs.	12c
¾	1 lb.	15c
⅞	1¼ lbs.	18c
1	1½ lbs.	22c

TOE HARDIES.

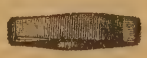
4-X-6945. For cutting off heels of shoes.

Shank..... ⅞
Each 48c

HOT CUTTER.

4-X-6991. Without handle. Cuts 1⅜ inch, weight, 2¼ lbs.....75c

COLD CUTTER.



4-X-6989. Cuts 1⅜ inch, weight, 2½ pounds...75c

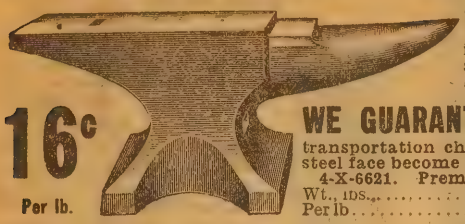
SQUARE SET HAMMERS.

4-X-6987.

Face In.	Wt. Lbs.	Ea.
1¼	2¼	$0.65
1½	2¾	.85
1¾	4¼	1.05

See the big Special Blacksmiths' Tool in this book!

PREMIER WROUGHT IRON ANVILS



16c Per lb.

THE HIGHEST GRADE American wrought iron anvils ever offered. Top and bottom are each made of one solid piece of the toughest iron. The body is made in two pieces, welded at the waist by improved methods. The face is made of one solid piece of highest grade tool steel, properly tempered and securely welded to the body and is guaranteed not to come loose. The face is planed after the anvil is finished and is therefore smooth. Has wide base, perfectly shaped horn and heel.

WE GUARANTEE every anvil to give perfect satisfaction. Any anvil that is not satisfactory can be returned to us within thirty days and we will refund the amount paid, including transportation charges. We further guarantee that should any Premier Anvil break at the waist or the steel face become loose within one year from date of purchase, it will be replaced without charge.

4-X-6621. Premier wrought iron anvils.

Wt., lbs.	200 to 220	170 to 190	120 to 165	80 to 119	70 to 79	60 to 69	50 to 59
Per lb.	16c	17c	18c	19c	20c	21c	22c

$3.50 CAST IRON ANVILS $3.50

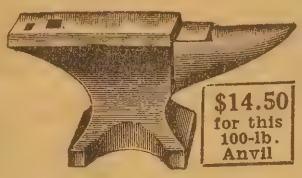
$3.50

These Anvils are made of a superior pig iron. Face accurately machined and chilled, therefore giving a smooth Anvil surface. This Anvil is for light work, and is not suitable for heavy forging. Is a first class all around agricultural Anvil. The waist is reinforced and the horn is slightly heavier in proportion than in a wrought iron Anvil. Anvil is fitted with ⅜-inch hole for hardy also a ½-inch hole for punching. We offer this as a first class low priced Anvil for farmers, plumbers, locksmiths, repair men, etc., and know that we offer more for the money than it would be possible to get elsewhere. In three sizes only.

4-X-6625.

Weight lbs.	50	70	100
Price each	$3.50	$4.90	$7.00

PERFECTION STEEL FACED CAST IRON ANVILS



$14.50 for this 100-lb. Anvil

4-X-6623. The face of this anvil is one solid piece of tool steel, thoroughly welded to body of anvil by a patented process and is then accurately ground and tempered. The horn is covered with steel and its extremity is made entirely of tough untempered steel. The body of the anvil is made of superior pig iron. The face and the horn are warranted to be welded thoroughly to body and not to separate. They are designed to give first-class service but will not stand the hard wear as will a wrought iron anvil.

Wt., lbs.	20	30	40	50	60	70	80	100
Each	$5.35	$6.30	$7.20	$8.50	$9.60	$10.85	$12.00	$14.50

BLACKSMITH FORGE BLOWER

Strong and Powerful Thoroughly Reliable

$19.50

THE CRANK blower is rapidly superseding the old style lever blower and blacksmiths bellows. They are easier to operate and produce a more steady and greater volume of air, thus making it possible to bring your work to a proper heat in less time and with much less labor.

OUR CYCLONE Blower is made with flat cut gears which are encased in an oil tight and dust proof gear case. The gears run in a continuous bath of oil. The crank turns forward or backward.

THIS BLOWER gives a good blast and meets the general demand of blacksmiths who prefer to build their own forge.

Dimensions:

Height, 45 in.; Dia. of fan case, 12 in.; Dia. of fan, 9¾ in.; Weight crated about 115 lbs.

4-X-6617. Price complete with piping and improved anti-clinker tuyere **$19.50**

LANCASTER SPIRAL GEARED BALL BEARING BLOWER.

$28.90

Lancaster ball bearing blower is fitted with cut spur and spiral, Gearing and Ball Bearings made of the **finest hardened phosphor bronze and swiss steel.** Carefully ground and polished to perfect finish, thus insuring noiseless smooth running. **The construction of gears** is such that eight full teeth of the spiral gear continuously mesh into eight full teeth of spiral shaft insuring strength, durability and high speed. The spiral shaft, to which the fan is attached is the only piece which runs with a high speed. Perfect ball bearings and oilings arrangements absolutely prevent wear and friction.

Lancaster center and side blast deep fire tuyere is furnished in connection with the Lancaster blower. Positively the best tuyere on the market. No scattered blast. No waste of heat and the blast can be controlled by simply turning the rod.

The height of crank is adjustable from 41 to 45 inches. Is equipped with center and side blast. Deep fire tuyere blower. Size 11½x9x4 inches. Diameter of fan case 13 inches. Shipping weight 135 pounds.

4-X-6601. Complete with center and side blast tuyere and pipe.
Price **$28.90**

NORTON'S ADJUSTABLE BLAST TUYERE IRON.

4-X-6629. Regulated by turning large rod. The cinders and ashes may be removed by drawing out small rod which opens the slide. The levers and spring are readily changed to either side for right or left hand use.
Weight 27 pounds.
Price **$2.80**

WARREN'S PATENT TUYERE IRON.

4-X-6631. Very simple and easily adjusted. Blast is regulated by simply revolving the ball which has three unequal sides. Open the bottom valve and all cinders and ashes drop out.
Weight about 31 pounds.
Price **$3.00**

BUFFALO IMPROVED HAND BLOWER.

$14.00

4-X-6627. Fitted with improved ratchet cranks, which when released by operator does not continue to revolve with the blower, but drops to the starting position. 30 turns per minute are sufficient to heat 3 to 4 inch iron in 5 to 10 minutes.

The frame is strongly constructed hardwood, well built and braced. The gears are proportioned to give the required fan speed at a low crank motion with minimum frictional losses.

DIMENSIONS:

Height 47 inches. Size of fan 14 inches. Weight 135 pounds.
Price, complete with tuyere **$14.00**

CLARK'S TUYERE IRON.

Made of best quality gray iron with dump and shaker.
4-X-6611. Medium size, weight 22½ pounds.
Price **$2.15**
4-X-6613. Large size, Weight 27 pounds. Price **$2.50**

SINGLE DUCK NEST TUYERE IRON.

4-X-6619. Made of the best quality of gray iron. Weight 12 pounds.
Price **85c**

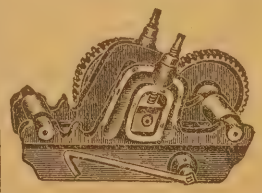
PERFECTION GEARED TIRE BENDER.

All journals are provided with steel roller bearings which make them very easy running. The rolls are provided with steel roller bearings perfectly round and true, which insures good work.

4-X-6607. Size No. 2. **Will bend 3½ inch tire** or smaller to a circle of 24 inches in diameter or larger.
Price with crank **$9.80**

4-X-6609. Size No. 2½. **Will bend 4½ inch tire** or smaller to a circle of 24 inches in diameter or larger.
Price with crank **$10.85**

PREMIER GEARED TIRE BENDER.

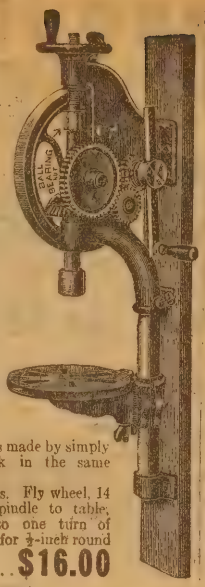


A high grade machine with turned rollers and bearings, and a first class tool in every respect. Can be easily adjusted for tires of different thickness. Heavily constructed and guaranteed to do satisfactory work up to its capacity.

4-X-6615. Will bend 5-inch tire or smaller to a circle of 24 inches in diameter or larger. Price **$14.70**

PREMIER BALL BEARING GEARED SELF FEED POST DRILL

WITH INTERMEDIATE GEAR



With Intermediate Gear. A perfect drilling machine. Is a simple, powerful, high grade all-around drill, designed for quick and easy running and operation. Has all the good features of other drills in improved form.

Includes many high priced features. Beauty of design, excellence of finish, ball bearing automatic feed, ground bearings, intermediate gear—these are features found only on drills usually sold at much higher prices.

All parts readily detachable. No riveted pins holding spindle to feed screw, no washer bearings and riveted studs for the gears. It must not be confused with drills offered at similar prices. It is so much superior that it is in a class by itself. All parts are interchangeable. The main gear revolves on a movable stud, screwed into the frame and having a hexagon head. The intermediate pin also turns on a steel stud and is held in place by a collar and fillister head screw.

The Gears are Machine Moulded, cleaned with sand blast which insures smoother and more perfect running—the nearest possible approach to cut gears.

Ball bearing feed. The nut connecting the feed screw to the spindle is complete within itself and is ball bearing, thus the friction is greatly minimized and the power required for running is reduced from 25 to 50 per cent. The ball bearings also overcome the necessity of frequent oiling. The discs or cups carrying the balls are of the best case hardened steel.

Has adjustable self feed. The automatic feeding device gives nearly a continuous feed, thus saving a big item in drill bits. The device is located back of the spindle and operated by a cam inside of the main gear wheel. The speed can be increased or diminished by simply turning the thumb screw. The table is solid and planed perfectly smooth. Can be raised or lowered, swung to either side or removed entirely for special work.

Two speeds. No left hand turning. One for light work and the other for heavy. The change is made by simply removing the crank hub from one shaft to the other. The intermediate gear permits turning the crank in the same direction on both speeds.

Dimensions: Total height, 45 inches. Diameter of table, 10 inches; drive gear wheel, 6 inches. Fly wheel, 14 inches. Spindle, 1 inch. Column, 1 9-16 inches. Run of spindle, 4 inches. Greatest distance of spindle to table, 13½ inches. Spindle turns 1½ times to one turn of crank on fast speed and crank turns 1½ times to one turn of spindle on slow speed. Drills to center of 15-inch circle and up to 1½ inch holes. Spindle is bored for ½-inch round shank drills. Weight, crated, about 115 pounds.

4-X-6701. Price..... **$16.00**

Blacksmiths' Hand Feed Post Drills.

$8.25

Substantial, rigid, powerful and durable. Simple in construction. **We guarantee that this drill will do equally as good work as any of the higher priced drills, and is an indestructi tool.** For use on farms and in small shops. The crank is adjustable to long or short turn. Drill table can be raised, lowered or swung out of the way so fork can be used to hold wheels. It is much more practical than a bench drill and will permit a wider range of work. Upright column and feed screw are made of special steel. The bearings are long and heavy, making it the easiest running and most practical and satisfactory small drill on the market. The drill spindle is 1 in. steel and bored for ½ inch round shank drills. Feed has an up and down run of 3 inches. Height of drill, 36 inches Diameter of upright column 1⅜ inches; diameter of gear wheels, 6½ inches. Greatest distance of spindle to table 10½ inches. Drills ¾ inch holes to a center of a 12 inch circle. Weight, crated, about 60 lbs.

4-X-6713. Price..... **$8.25**

$10.95

$10.95 Perfection Double Geared Self Feed Post Drill.

We claim that this is the best drill ever offered at the price and will meet with the requirements of the general shop and blacksmith work. It is constructed in the best possible manner and the material and workmanship cannot be excelled. The crank is adjustable to long or short turn. The self-feed attachment can be set fast or slow speed or thrown out when self-feed is not required. The drill table can be raised, lowered or swung out of the way, or can be taken off entirely. The spindle has a run of 3 inches. Height of drill, 35 inches. Diameter of upright column, 1⅜ inches; diameter of drive gear, 8 inches; diameter of table, 6 inches. Greatest distance of spindle to table, 10½ inches. **Fly wheel.** 14½ inches in diameter. Drill spindle is ⅞ steel and is bored for ½ inch round shank drills. Drills ¾-inch holes to a center of 12-inch circle. Weight crated about 80 pounds.

4-X-6703. Price..... **$10.95**

$14.50

$14.50 Perfection Double Geared Self Feed Post Drill.

Especially constructed to meet the requirements of shops where heavy work is performed. This drill will do more work than any hand power post drill of a similar style on the market. All bearings are turned out of solid metal to a workfit. The drill has two speeds, one for light work—the other for heavy. The change can be made instantly by changing the handle from one shaft to the other. Table can be raised or lowered, turned to side or removed if desired, and the fork used as a wheel holder. The automatic feed device is located back of the spindle and is worked by a cam, giving almost a continuous feed, making it impossible for the drill to jam into the work. The lower column is properly aligned with the spindle and the drill table is at right angles with the spindle, which causes the drill to turn free and easy. Run of spindle 3 inches. Bored for ½-inch round shank drills. Drills 1¼-inch holes to center of a 15-inch circle. Weight, about 125 lbs.

4-X-6707. Price..... **$14.50**

Premier Ball Bearing Blacksmiths' Combined Power and Hand Drill

$17.00

The same construction as our 4-X-6707 Premier ball bearing geared self-feed post drill, with intermediate gear and is a first class equipment for shops that are provided with power, this drill being fitted with fly wheel and crank can be run by hand equally as well as by power. The easiest running and fastest drilling post drill ever offered. The automatic feeding device gives nearly a continuous feed, so that the drill does not jam into the work, thus making a big saving in drill bits. The speed can be increased or diminished by simply turning thumb screw. Drill is extra heavy construction throughout and will do equally as good work as many drills that are sold for considerably more. Run of spindle, 3 inches. Diameter of spindle, 1 inch. Bored for ½-inch round shank drills and drills to 1½ inch holes to a center of 15-inch circle. Weight crated, 135 pounds.

4-X-6715. Price..... **$17.00**

Self Feed Blacksmiths' Post Drill.

$27.00

Strongly constructed and especially adapted for heavy work. Used largely by blacksmiths, boiler makers, bridge builders and elsewhere where a high grade heavy drill is required. For belt and hand power. Fitted with tight and loose pulleys and fly wheel. It is equipped with a special automatic feeding device which is located back of spindle and is worked by a cam on inside of main gear wheel. This cam is constructed so as to give nearly a continuous feed. Made for heavy service. Simplicity and small number of parts are some of the features that go to make this drill so popular. All bearings are extra long and turned out of solid metal. The alignment is absolutely perfect and will not swing and will run easier and faster than any other drill of a similar style in the market. Height of drill, 45 inches. Diameter of table, 11 inches. Diameter of spindle, 1⅛ inches. Run of spindle, 3 inches. Size of columns, 2 inches. Greatest distance of spindle to table, 16½ inches. Spindle turns 1½ times to one turn of crank fast speed, crank turns 1½ times to one turn of spindle on slow speed. Spindle is bored for ½-inch round shank drills. Drills 1¼ inch holes to center of 18-inch circle. Weight, 190 lbs.

4-X-6705. Price..... **$27.00**

Goodell's Bench Drills.

Constructed in the most substantial manner with solid iron frame. Steel feed screw, cut gears and adjustable table. Well made and fitted in the best possible manner, with a special vise which can be used in place of the table for holding the work. The jaws open 1 3-16 inches and operate on right and left hand screw. The drill is furnished complete with a 3-jawed chuck, capacity 0 to ¼ inch and 8 fluted drills from 1-16 to 11-64ths inch. Height from table to feed wheel, 13 inches. Shipping weight about 13 pounds. 4-X-6708.

Price, complete with vise as above described..... **$7.50**

4-X-6709. **Price, without vise**..... $5.90

A very durable and strong tool. For light and medium work. Heavy, solid iron frame, cut gears and two different speeds. Quickly changed by shifter conveniently located. Steel feed screw. A special vise; jaws open 2 inches and operate on right and left hand screw. Adjustable table which can be quickly removed and replaced with the vise for holding the work 3 jawed chuck, capacity, 0 to ⅜ inch and 8 fluted drills, sizes from 1-16 to 11-64 inch. Height from table to feed wheel, 18 inches. Shipping weight, 18 pounds.

4-X-6711. **Price, complete as above described**..... **$11.75**

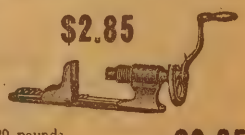
Green River Shoeing Vise and Bolt Header.

$16.50

Forms both sharp and straight calks without changing the die. Fitted with bolt heading attachment which does not interfere with operation of vise. Dies made of high grade tool steel, properly shaped. Heads bolts any length up to 24 inches. Weight about 150 pounds. Size of bolt heading dies, ¼, 5-16, ⅜, 7-16, ½, ⅝ and ¾ inch. **Complete for shoeing and bolt heading.**

4-X-6719. Price..... **$16.50**

Horizontal Bench Drill.



$2.85

Blacksmith and farm use. A strong durable tool which will give excellent service. Drill spindle bored for bit stock drill No. 4-S-6807. Weight, 29 pounds.

4-X 6721. Price..... **$2.85**

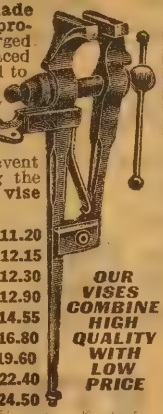
Do You Need a Heating Plant or Plumbing Outfit? We will be pleased to take this up with you

BLACKSMITHS' MACHINISTS'

VISES

STEEL BEAM BENCH CLAMP RAPID ACTING COMBINATION VISES

BLACKSMITHS' SOLID BOX VISES.



The strongest and best made solid box vise possible to produce. The jaws are each forged from one piece of steel and are faced with crucible tool steel tempered to stand the pressure. The screws are made from heavy steel screw stock threaded on automatic machines, insuring uniformity. The box is fitted with special collars to prevent binding the screw and stripping the thread. **4-X-7201. Every vise fully guaranteed**

35 Lbs.,	Width of Jaws	3¾,	Each,	$11.20
40 "	" "	4	"	12.15
45 "	" "	4¼	"	12.30
50 "	" "	4½	"	12.90
60 "	" "	4¾	"	14.55
70 "	" "	5¼	"	16.80
80 "	" "	5¾	"	19.60
90 "	" "	6	"	22.40
100"	" "	6¼	"	24.50

OUR VISES COMBINE HIGH QUALITY WITH LOW PRICE

PREMIER COMBINATION ANVIL, VISE, DRILL AND HARDIE

This useful combination of tools is designed to meet all requirements for farmers, mechanics, mills, mines, in fact it is useful in every home. It consists of a vise, drill, anvil and hardie. Jaws of the vise open 6 in. Width 3½ in. and are faced with steel.

Drills holes up to ½ in. ½-in. round shank drills are used in connection with this tool.

Weight about 50 pounds.

4-X-7221. Price complete without drills..... **$4.25**

SOLID JAW MACHINISTS' BENCH VISES.

4-X-7223. The metal used is an alloy mixture, very tough, making the strongest vise possible to manufacture. Reinforced where the strain is heaviest. Screws and handles are cold rolled steel. Jaws are heavy tool steel carefully tempered. Every vise is fully guaranteed. Stationary bottom.

Width of jaws Inches	Opens Inches	Wt., lbs.	Price Each
3	4½	24	$7.50
3½	5	28	8.45
4	6	42	9.55
4½	6½	55	11.60
5	7½	72	15.00

STEEL BEAM SWIVEL BASE VISE.

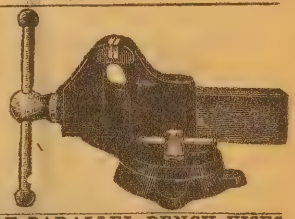
4-X-7203. This Vise has a solid steel beam which gives it strength. Being fitted with a swivel bottom it can be turned rapidly either right or left. This movement is securely fastened with turn of lever.

Width of Jaws Inch	2½	3	3½	4
Opens Inch	3	3½	4	6
Weight, lbs.	12	15	20	32
Price Each	$3.40	$4.15	$5.25	$7.70

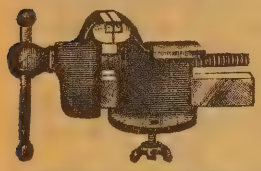
STANDARD SWIVEL VISE

4-X-7225. This vise can be turned in any position on an axis parallel with the floor and is locked by a clamping bolt.

Width of Jaws	Opens	Weight	Price Each
3"	4"	28 lbs.	$ 9.75
3½"	5"	38 lbs.	11.25
4"	6"	54 lbs.	12.75
4½"	6½"	65 lbs.	15.00
5"	7½"	90 lbs.	22.50
5½"	8½"	120 lbs.	28.50
6"	10"	136 lbs.	39.00
7"	12"	240 lbs.	52.50



STEEL BEAM VISE.



4-X-7205. This vise is of very strong construction and is made with solid steel beam. The handles are of cold rolled steel and the jaws tempered steel. Furnished with bolt and nut and can therefore be used as a swivel as well as a stationary vise.

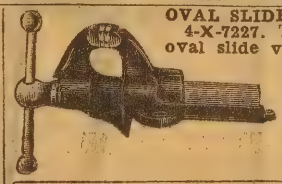
Width of Jaws	2½	3	3½	4
Opens Inch.	3	3½	4	6
Weight, lbs.	11	13	19	30
Price Each	$2.80	$3.55	$3.95	$6.20

BENCH CLAMP VISES.

4-X-7215 These small vises are made to clamp to a table or bench. They are very handy and well made. The top of the jaws and face and anvil are ground and polished. The sliding jaw is made with a deep machine cut thread which works smoothly and holds the work firmly.

Width of Jaws Inch	Opens Inch	Price Each
1½	1½	55c
2	2	90c

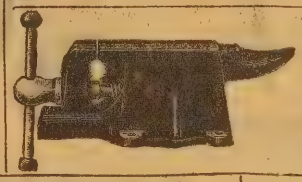
OVAL SLIDE PARALLEL BENCH VISES.



4-X-7227. The strongest and best finished oval slide vise manufactured. Has tool steel jaws and wrought screw, accurately cut and fitted. Adapted for any kind of light work.

Width of Jaws Inch	Opens Inch	Wt., lbs.	Each
2½	3¾	8	$2.10
3	4	14	2.45
3½	4½	24	3.10

COMBINATION VISE ANVIL AND PIPE VISE.



4-X-7229. This Vise is intended only for light work and is the best finished vise of its type on the market. Made of cast iron with chilled face. Width of jaws 3 inches, opens 5 inches. Weight 26 pounds. Price..... **$2.15**

HAND SHAVED OCTAGON HICKORY AXE HANDLES

4-X-6201. Made of strictly clear, selected, thoroughly seasoned second growth, white hickory. The best handle possible to produce, properly shaped, sand papered and polished finish. Length 36 inch.

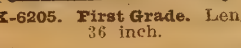
Each 57c

HAND SHAVED OVAL HICKORY AXE HANDLES

4-X-6203. Made of strictly clear, selected, thoroughly seasoned second growth, white hickory. The best handle possible to produce, properly shaped, sand papered and polished finish. Length 36 inch.

Each 54c

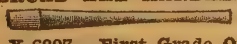
TURNED HICKORY SINGLE BIT AXE HANDLES



4-X-6205. First Grade. Length, 36 inch.

Each 29c

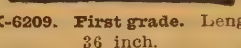
BROAD AXE HANDLES



4-X-6207. First Grade Only. Reversible for right or left hand. Length, 34 inch.

Each 28c

DOUBLE BIT HICKORY AXE HANDLES



4-X-6209. First grade. Length, 36 inch.

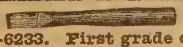
Each 29c

PICK OR MATTOCK HANDLES

4-X-6211. First grade. Length, 36 inch.

Each 34c

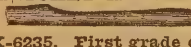
HAMMER HANDLES



4-X-6233. First grade only. Length, 14 inch.

Each 7c

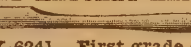
HATCHET HANDLES



4-X-6235. First grade only. Length, 14 inch.

Each 7c

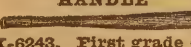
BROAD HATCHET HANDLES



4-X-6241. First grade only.

Length, inch	16	17	18
Each	9c	10c	11c

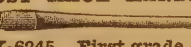
RIVETING HAMMER HANDLE



4-X-6243. First grade only. Length, 14 inch.

Each 7c

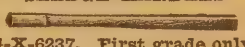
POST MAUL HANDLES



4-X-6245. First grade only. Length, 36 inch.

Each 20c

SLEDGE HANDLES



4-X-6237. First grade only. Length, 34 inch.

Each 22c

MACHINISTS' HAMMER HANDLES

4-X-6239. First grade only. Length, 16 inch.

Each 7c

BLACKSMITHS' HAMMER HANDLES

4-X-6247. First grade only. Length, 16 inch.

Each 7c

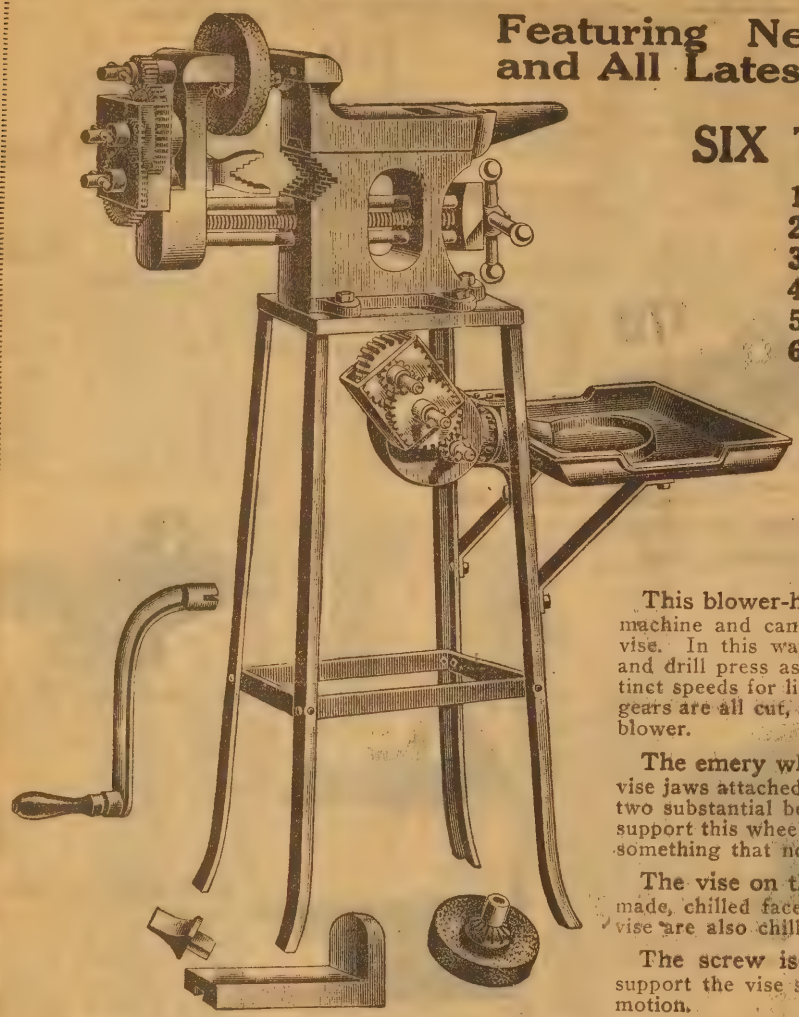
ADZE HANDLES

4-X-6249. First grade only. Length, 34 inch.

Each 25c

Blacksmith's Combination Outfit

Featuring Newest Additions and All Latest Improvements



SIX TOOLS IN ONE!

1—Forge
2—Vise
3—Anvil
4—Pipe Vise
5—Drill Press
6—Emery Grinder

$22.00

This blower-head is detachable from the forge on this machine and can be mounted in an instant in front on the vise. In this way the same gears are engaged as a grinder and drill press as shown on cut. This grinder has three distinct speeds for light, medium and heavy cutting. The grinder gears are all cut, as they are the same gears used on the forge blower.

The emery wheel is screwed on the stud between the vise jaws attached to the high speed gear on this gear box and two substantial bearings—one on each side of the vise jaws—support this wheel, making it a rigid, practical, durable grinder, something that no other combination tool has.

The vise on this combination tool is serviceable, well made, chilled face wherever necessary; the jaws for the pipe vise are also chilled.

The screw is accurately cut and two heavy shafts support the vise so that the jaws meet perfectly without lost motion.

To convert this machine into a drilling machine, the emery wheel is screwed off the shaft and the anvil on top removed, and the drill plate laid on top of the vise which fits perfectly and lays rigid for drilling. The drill bit is inserted in the socket, which takes one-half inch shank bits, and three distinct speeds for wood, iron, light, medium and heavy work. The three speeds on the drill make a practical, silent, smooth-running drill, the gears all being cut, whereas other outfits have cast gears on the drill attachment with one speed only.

The pipe vise operates without any change whatever. No parts are removed or lost and this machine takes pipe up to two inches.

The height of this machine to the top of the forge pan is 26 inches; to the top of the stand on which the vise and anvil are mounted is 30 inches above the floor, and the vise and anvil alone weigh over 100 pounds.

The legs are angle steel, well riveted to the top plate and tool tray, and the two steel rods support the forge pan.

This is the most practical blacksmith outfit on the market, furnished complete with one 6x1" emery wheel, and one Hardie, as illustrated. Shipped from Chicago Warehouse.

4-X-974.
Price complete..... **$22.00**

This splendid combination Blacksmith Outfit, equipped with Forge, Vise, Anvil, Pipe Vise, Drill Press and Emery Grinder, is strictly a high grade combination tool that is built for service.

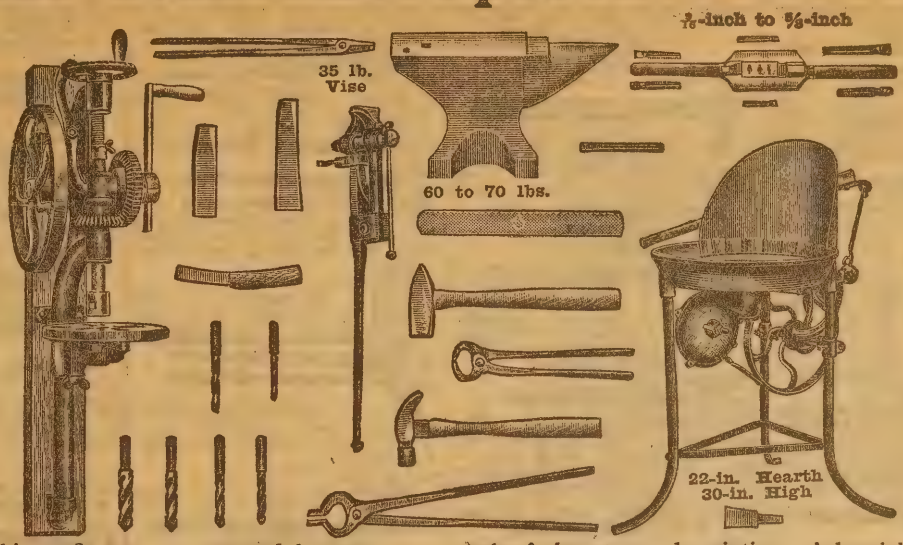
The gears are all cut. The forge pan is 12"x14", large enough to take a plowshare. This pan is cut away so that a plow-share can be put into it. The Blower-head attached is a real cut-gear, high speed outfit that runs silent and is speeded high enough to produce a white pressure heat so that welding can be done on any work the farmer is able to handle.

Detailed Dimensions

Height over all	41	inches
Height to top of Forge Hearth	26	"
Width of Vise Jaws	4	"
Extreme opening of Vise Jaws	4½	"
Capacity of Pipe Vise	3	"
Capacity of Drill Press	½	"
Greatest distance from Spindle to Table	11	"
Spindle bored to take	½	"
Face of Anvil	3"x5¾"	
Size of Hardie	⅝"	
Size of Forge Hearth	12"x14"	
Depth of Forge Hearth	2'	
Speeds obtained by gearing	1 to 1	
	1 to 4	
	1 to 14	
Size of Emery Wheels	6x1"	
Floor Space	12"x16"	
Weight	135 pounds	

If the Tools You Wish Are Not Listed In This Book Write Us!!

Blacksmiths' Complete Tool Outfit



Designed for the farm and workshop

$57.50

With this outfit you are prepared for emergency work of almost any description. A breakdown during your busy season is a serious matter. You can save time and money if your shop is equipped with these high grade tools. A careful comparison will convince you of the exceptional value which we offer in this outfit. Our **Eureka Blacksmiths' Tool Outfit** consists of the following tools:

FORGE—Our Tornado Portable Forge. Diameter of hearth 22 inches. Diameter of fan case 8 inches. Weight about 95 lbs.
ANVIL—Solid Cast Iron Anvil, with steel face and horn, welded to the body and warranted not to separate. Weight 60 pounds. Cannot be excelled for light and medium work. Will answer every purpose of a wrought iron anvil.
POST DRILL—Our Perfection Double Geared Self-Feed Post Drill, superior in construction and workmanship. Takes ½-inch round shank bits, drills ¾-inch holes to center of a 12-inch circle.
STOCKS AND DIES—Cuts ⅝ to 1/16-inch. 14, 18 and 22 threads to the inch. 6 taps and 3 sets of dies.
VISE—Solid Box Wrought Blacksmiths' Vise, with tool steel jaws. Weight 35 pounds.

We Also Include Blacksmith's Hard Hammer. Weight two pounds, with selected hickory handle. **Farriers' Knife.** Stag handle, polished blade. Made of the best English steel. **Farriers' Hammer.** Made of high grade crucible steel with selected hickory handle. Weight about 14 ounces. **Hot Cutter.** Cuts 1⅜ inches. Weight 2¼ pounds. **Cold Cutter.** Cuts 1⅜ inches. Weight 2⅛ pounds. 6½-inch **Round Shank Drill Bits,** to fit post drill, sizes ⅛, 3/16, ¼, 5/16, ⅜ and ½-inch. **Rasp.** 14-inch crucible steel horse rasp. **Blacksmith's Pinchers.** Length 14 inches. Made of high grade steel. **Tongs.** One pair 20-inch Straight Lipped Tongs. **Cold Chisel.** Octagon tool steel. ½-inch cut. **Hardy to fit anvil.**

ORDER NO. 4-X-6303. Eureka Blacksmiths' Tool Outfit. Price **$57.50**

Straight Shank Twist Drills

High Grade Straight Shank Drills. Made for machinists' use, from finest tool steel used in the manufacture of drills. Each drill ground to gauge, finely tempered and guaranteed to drill more holes than any other twist drill made. To be used in connection with drill chuck for round shank drills. They cannot be used in a common bit brace. Shanks for these drills are the same diameter as the drill.

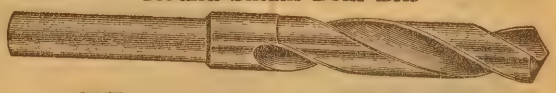
4-X-6805. Straight shank twist drills.

Diameter	1/16	5/64	3/32	7/64	⅛	9/64	5/32	11/64	3/16	13/64
Length, inches	2½	2⅝	2¾	2⅞	3	3⅛	3¼	3⅜	3½	3⅝
Each	10c	11c	11c	11c	12c	12c	12c	13c	14c	16c
Diameter	7/32	15/64	¼	17/64	9/32	19/64	5/16	21/64	11/32	23/64
Length, inches	3¾	3⅞	4	4⅛	4¼	4⅜	4½	4⅝	4¾	4⅞
Each	17c	19c	20c	22c	24c	25c	27c	30c	32c	34c
Diameter		⅜	25/64	13/32	27/64	7/16	29/64	15/32	31/64	½
Length, inches		5	5⅛	5¼	5⅜	5½	5⅝	5¾	5⅞	6
Each		38c	41c	44c	48c	53c	58c	63c	69c	75c

Straight Shank Twist Drill Set $9.95

4-X-6802. Set of straight shank twist drills 1/16 to ½ by 64ths. Mounted on metal blocks. Each hole is stamped with size of drill, also decimal equivalent and tap drill size. **Price** **$9.95**

Round Shank Drill Bits

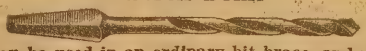


WITH HALF INCH ROUND SHANKS
For Use in Connection with Post Drills

4-X-6801. Half-Inch Round Shank Drills made of the very best grade of Steel, accurately and carefully tempered and will drill more holes than any other blacksmith drill on the market. Each one is absolutely true to gauge and fully guaranteed in every particular.

Price	31c	34c	35c	36c	37c	40c	44c	48c	51c	54c	57c	63c	65c	69c	
Size	⅛	5/64	3/32	7/64	¼	9/32	5/16	11/32	3/8	13/32	7/16	15/32	½	17/32	
Price	70c	76c	82c	90c	96c	$1.02	$1.08	$1.14	$1.20	$1.28	$1.34	$1.41	$1.47	$1.53	$1.50
Size	9/16	19/32	⅝	21/32	11/16	23/32	¾	25/32	13/16	27/32	⅞	29/32	15/16	31/32	1

Bit Stock Drills



4-X-6807. Can be used in an ordinary bit brace, and will drill hard-wood, steel and other metals. Each drill is accurately ground, perfectly tempered and guaranteed to be the best possible produced.

Size	⅛	5/64	3/16	7/32	¼	9/32	5/16	11/32	⅜	13/32	7/16	15/32	½	⅝	¾	⅞	1
Each	13c	16c	17c	19c	21c	27c	30c	35c	37c	40c	45c	50c	57c	77c	$1.03	$1.30	$1.54

Post Drill Chucks

Made with half-inch straight shanks and will fit any of our post drills. Straight shank twist drills are used in connection with these chucks.

4-X-6809. Holds drills ⅜ in. and smaller..$2.00
4-X-6811. Holds drills ½ in. and smaller.. 2.55

Knife Handle Monkey Wrenches

4-X-6825. Machinists' Pattern. Designed especially for mechanics' use. All parts are made of the very best material accurately fitted and every wrench warranted.

Length, inches	6	8	10	12	15	18
Price, each	85c	$1.10	$1.30	$1.60	$2.20	$2.90

Machine Counter Sinks

4-X-6823. Half-Inch Round Shank. Will fit any of our post drills.

Size, in.	⅝	¾
Each	40c	60c

Perfect Handle Wrench

4-X-6831. Entire Bar Drop Forged From One Piece of Steel. Fitted with a special waterproofed wood "Perfect Handle" locked in under pressure and will not split or crack. Made with reinforced bar. The strongest and best wrench on the market. **Guaranteed to Give Entire Satisfaction, or Money Refunded.**

Length, in.	6	8	10	12	15	18	21
Opens, in.	1 1/16	1¼	1⅞	2 1/16	2¾	3 1/16	4
Price	95c	$1.15	$1.40	$1.75	$2.40	$3.05	$3.65

Adjustable "S" Wrench

4-X-6833. High Grade Tool. Steel jaws, malleable iron frame. Suitable for work in close places. Made to stand heavy work.

Length, inches	6	8	10	12	14
Opens, inches	¾	1	1⅜	1⅝	2
Price, each	70c	90c	$1.05	$1.35	$1.85

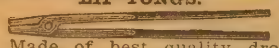
Standard Steel Monkey Wrenches

4-X-6827. Made of Extra Heavy Forged Steel. Bar and head forged from one piece. Deep milled screw thread. Steel knurl opens full. Every wrench fully warranted.

Length, inches	6	8	10	12	15
Price, each	80c	$1.05	$1.25	$1.55	$1.95

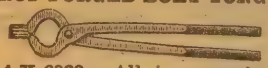
BLACKSMITHS' AND HORSESHOERS' TOOLS

BLACKSMITHS' STRAIGHT LIP TONGS.



Made of best quality drop forged steel.
4-X-6925. Length, 20 in....69c
4-X-6927. Length, 22 in....72c

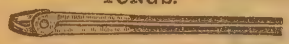
DROP FORGED BOLT TONGS.



4-X-6929. All in one piece, no weld.

Takes bolts, inches	5/16	3/8	5/8
Length, in	18	20	22
Each	67c	70c	80c
Takes bolts, in	3/4	7/8	1
Length, inches	22	24	24
Each	81c	87c	88c

DROP FORGED FARRIERS' TONGS.

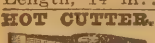


4-X-6931. Solid steel, oil finished. Size 14"....53c

DROP FORGED HOOF PARERS.

4-X-6935. Made of best quality of tool steel and properly tempered. Fully warranted.
Length, 12 in....$1.85
Length, 14 in....2.25

HOT CUTTER.



4 - X - 6991. Without handle. Cuts 1⅜ inch, weight, 2¼ lbs....78c

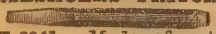
COLD CUTTER.

4 - X - 6989. Cuts 1⅜ inch, weight, 2¼ lbs....78c

HORSESHOERS' TOE KNIFE.

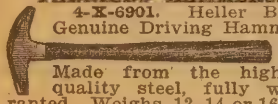
Made of solid cast steel, oil finished and fully guaranteed.
4-X-6939. Price....75c

HORSESHOERS' PRITCHEL.



4-X-6941. Made of octagon tool steel, ⅝-inch in diameter, oil finished....39c

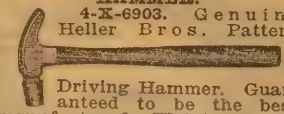
GENUINE HELLER BROS. FARRIERS' HAMMERS.



4-X-6901. Heller Bros. Genuine Driving Hammer.

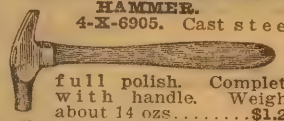
Made from the highest quality steel, fully warranted. Weighs, 12, 14 or 16 oz. State weight wanted....$1.25

GENUINE HELLER BROS. PATTERN DRIVING HAMMER.



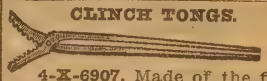
4-X-6903. Genuine Heller Bros. Pattern Driving Hammer. Guaranteed to be the best manufactured. Weighs, 14 and 16 ozs. Price....$1.40

ADZE EYE FARRIERS' HAMMER.



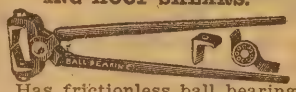
4-X-6905. Cast steel full polish. Complete with handle. Weight about 14 ozs....$1.25

CLINCH TONGS.



4-X-6907. Made of the finest tool steel. Used for turning the clinch instead of using a hammer. Especially desirable for colts or nervous horses...$2.05

"OUR PRIDE" BALL BEARING HOOF SHEARS.



Has frictionless ball bearing joints, interchangeable knives. Drop forged from tool steel, making the tool practically indestructible as the knives can be readily replaced. Handles can be grasped with one hand when open. Both knives are sharp, making a shear cut insuring a smooth job. Adjustable to take up wear.
4-X-6911. 14 inches....$3.60

Extra Blades and Bolts for "Our Pride" Hoof Shears.
4-X-6915. 14 inches. Per set 84c

PERFECTION HORSE RASPS.

Made of high grade, carefully tempered crucible steel. These rasps cut fast and give excellent service. Each rasp fully guaranteed.

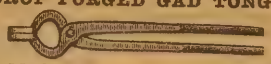
4-X-6917. In..	12	14	16
Each	30c	42c	57c

PERFECTION SLIM HORSE RASPS.

Preferred by the horseshoer. Being narrow, they are more easily handled and will cut fast.

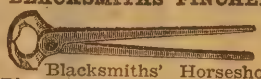
4-X-6919. Length, in.	16	18
Price, each	50c	60c

DROP FORGED GAD TONGS.



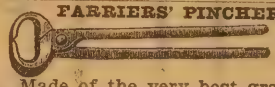
Made of best quality drop forged steel, oil finished.
4-X-6947. Length, 18 in..74c

BLACKSMITHS' PINCHERS.



Blacksmiths' Horseshoeing Pincers. Made of solid forged steel polished jaws, fully warranted.
4-X-6949.
Length, 12 inch....65c
Length, 14 inch....68c

FARRIERS' PINCHERS.

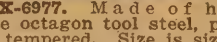


Made of the very best grade of tool steel, carefully tempered, finely finished and fully warranted.
4-X-6955.
Length, 14 inch....$1.63
Length, 16 inch....2.35

GENUINE HELLER BROS. HOOF PARERS.

Made of the highest grade tool steel, full polished. Guaranteed to be the best on the market.
4-X-6959.
Length, 12 inch....$1.82
Length, 14 inch....2.20

COLD CHISELS.



4-X-6977. Made of high grade octagon tool steel, properly tempered. Size is size of steel bar from which chisel is made.

Inches	½	⅝	¾	1
Each	17c	19c	28c	47c

HORSESHOERS' BUFFER.

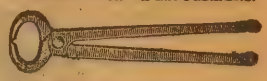
4 - X - 6969. Steel, oil finished. For cutting off or driving nails out of hoofs....75c

ROUND HAND PUNCHES.

4-X-6979. Made of high grade octagon tool steel. Length, 10 inches.

Size of Point.	Size of Steel Shank.	Price.
¼	¾	30c
⅜	1	32c
½	1	38c

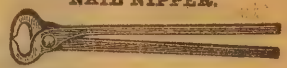
GENUINE HELLER BROS. FARRIERS' PINCHERS.



Made of the highest grade steel carefully tempered, finely finished.
4-X-6951.

Length, inches	14	16
Prices	$1.82	$2.28

CLEAN CLIP HOOF AND NAIL NIPPER.



4-X-6953. Drop forged of alloy steel. Web construction of handle gives stiffness, which insures easy cutting. 14 inches long. Weight, 26 ounces.
Price....$2.25

EXTRA HIGH GRADE FARRIERS' CUTTING NIPPERS.

4-X-6957. The best cutting nipper manufactured. Made of the best quality steel, finely finished, and guaranteed fully in every particular.
Length, 12 inch....$1.50
Length, 14 inch....1.85

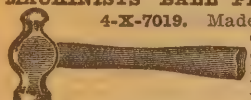
GENUINE HELLER BROS. CUTTING NIPPERS.

4-X-6961. Made of the finest grade crucible steel, fully warranted.
Length, 12 inch....$1.82
Length, 14 inch....2.20

PERFECTION INTERCHANGEABLE FARRIERS' KNIFE.

For the Horseshoer, Veterinarian and all horsemen. Blades made of the best cast steel, properly tempered and can be instantly changed.
4-X-6971. Knife comp..$1.40
4-X-6973. Handles only 26c
4-X-6975. Blades, each 37c

MACHINISTS' BALL PEIN HAMMERS.



4-X-7019. Made of the highest grade cast steel, half polished, complete with Handles. Handles not included in weight.

Wt., lbs.	1	1¼	1½	1¾	2
Each	95c	99c	$1.06	$1.14	$1.22

RIVETING HAMMERS.

4-X-7013. Polished cast steel. Complete with handles. Handles are not included in weight.

Weight, ounces	7	9	12	18
Each	90c	93c	96c	$1.00

BLACKSMITHS' SLEDGES.

4-X-7021. Solid cast steel polished faces, fully guaranteed. Prices do not include handles.

Wt., lbs.	6	8	10	12	14	16
Each	74c	$1.02	$1.26	$1.50	$1.76	$2.02

EASY BOLT CLIPPERS

4-X-7027. Indispensable in every blacksmith and machine shop. Required in constant use for cutting bolts, rods, etc. Jaws are made of the best steel, properly tempered and can be adjusted to take up the wear of the joints and cutting edges. Fitted with rubber bumpers between handles to avoid any jar. Guaranteed to give the utmost satisfaction.

Size No.	For Cutting Bolts	Each
0	Up to 1/8 inch	$2.97
1	Up to ⅜ inch	4.00
2	Up to ½ inch	5.58
3	Up to ⅝ inch	7.15

HORSESHOERS' TURNING SLEDGES.

4-X-7023. Solid cast steel, polished faces. Prices do not include handles.

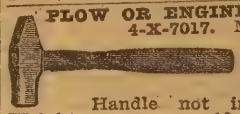
Wt., lbs.	6	8	10
Each	$1.20	$1.60	$2.02

BLACKSMITHS' HAND HAMMERS

4-X-7015. We guarantee this hammer to be made of the very best quality steel, polished and complete with handles. Handles not included in weight.

Weight, pounds	2	2½	3
Price, each	$1.36	$1.46	$1.55

PLOW OR ENGINEERS' HAMMER.



4-X-7017. Made of the very best quality of steel, highly polished, complete with handles. Handle not included in weight.

Weight, ounces	18	24	32	36
Each	90c	98c	$1.36	$1.46

FARRIERS' EMERY STONE.

4-X-7025. Made of solid Emery with steel rods running through entire length. One-half of stone having fine grit, the other medium. Length, 10 inch. Each....30c

TRIUMPH TOOL SET

$27.45

Each item represents the very best of their respective kinds. Every tool is selected from our regular stock and is fully guaranteed and adapted to the use of the skilled mechanic. Our price on this set is very much lower than if you bought these tools one at a time and the assortment is perfect. The Tool Chest is of Hardwood and is strongly made and nicely finished, fitted with sliding tray, handles and a secure lock.

Our Triumph Tool Set consists of the following tools:

1 **Premier Extra High Grade Hand Saw,** length, 26 inches.
1 **Favorite Rip Saw,** length, 26 inches.
1 **Compass Saw,** 12-inch, spring steel blade.
1 **Iron Block Plane,** length, 5½ inches.
1 **Adjustable Iron Jack Plane,** length, 15 inches.
1 **Morrell Pattern Saw Set.**
1 **Japanned Iron Saw Vise,** Length of jaws, 9½ inches.
1 **Slim Taper File,** length, 5 inches.
1 **Flat Mill File,** length, 8 inches.
1 **Malleable Iron File and Tool Holder.**
1 **Carpenters' Steel Square, No. 7,** with Essex board measure. Length of body, 24 inches; 16-inch tongue. Both sides marked in 8ths; 4ths and 1 inch.
1 **Oil Stone,** length 8 inches, mounted in hardwood case.
1 **Pair Carpenters' Pincers,** length, 8 inches. Claw on one handle, screwdriver on other.
1 **Knurled Nail Set,** tempered at both ends.
1 **Spring Tube Punch** for punching holes in leather.
1 **Marking Gauge.**
1 **Wing Divider,** polished steel, length, 8 inches.
1 **Tri-Square.**
1 **Adjustable Plumb and Level,** Polished cherry finish, arched top plates, two brass-lipped side views, length, 28 inches.
1 **Zig Zag Folding Rule,** length, 5 feet.
1 **Carpenters' Pencil.**
1 **Sliding T Bevel,** rosewood handle, brass tipped, 8-inch blade.
5 **Premier Socket Firmer Chisels.** Leather tipped handles, one each size ¼, ½, ¾, 1 and 1½ inches.
1 **Ratchet Brace,** nickel plated, polished hardwood head and handle, 10-inch sweep.
1 **Hollow Handle Tool Set,** polished cocobola handle, with 10 hand forged finely tempered tools.
1 **Premier Drawing Knife,** length of cut 10 inches.
1 **Monkey Wrench,** length 8 inches.
1 **Cold Chisel,** perfectly tempered, ½-inch cut.
6 **Jennings' Pattern Auger Bits,** high grade. One each size, ¼, ⅜, ½, ⅝, ¾ and 1 inch.
1 **Combination Side Cutting Plier,** length 6 inches. End of one handle can be used as screwdriver; the other is pointed and can be used as a reamer.
4 **German Pattern Gimlet Bits,** extra-quality. One each size, 1-16, ⅛, 5-32, and 3-16.

1 **Combination Anvil and Vise,** 1½-inch jaws.
1 **Premier Shingling Hatchet,** 3-⅞-inch cut.
1 **Forged Steel Nail Hammer,** size No. 1½.
1 **Chalk Line Reel and Awl.**
1 **Plumb Bob,** nickel plated.
3 **Hanks Braided Chalk Line.**
6 **Cakes Carpenters' Chalk.**
1 **Snail Head Counter Sink,** for wood.
1 **Mallet,** hickory head, size 6½x2¾x 3¼ inches, with handle.
100 **Assorted Tubular Rivets.**
12 **Sheets Sandpaper,** assorted.

4-X-4603. Triumph Tool Set. Complete with chest. Price **$27.45**

Excelsior Tool Set

$19.50

The Tool Chest is Made of Hard Wood and is Very Substantial. It is fitted with a sliding tray and a secure lock, and is sufficiently large to hold other tools that you may wish to add from time to time.

Our Excelsior Tool Set Consists of the Following Tools:

1 **Chicago Special Hand Saw,** 24 inches long.
1 **Chicago Special Rip Saw,** 26 inches long.
1 **Iron Block Plane,** length, 5½ in.
1 **Adjustable Wood Bottom Jack Plane,** length, 15 inches.
1 **Ratchet Brace,** 10-inch sweep, Nickel-Plated.
1 **2-foot Four-fold Rule.**
1 **Sliding T Bevel,** rosewood handle, brass-tipped, 8 inch blade.
3 **German Pattern Gimlet Bits,** one each size, 1-16, ⅛ and 3-16-inch.
1 **Oil Stone,** length, 6 inches, mounted in hardwood case.
4 **Extension Lip Auger Bits,** one each size, ¼, ½, ¾ and 1 inch.
1 **High-Grade Shingling Hatchet,** width of bit, 3⅞ inches.
1 **Premier Drawing Knife,** length of cut 10 inches.
1 **Screw Driver Bit.**
1 **Carpenters' Steel Square,** No. 7, with Essex board measure; 24-inch body, 16-inch tongue. Marked on both sides.
1 **Pair Combination Pliers,** nickel-plated, length 5 inches.
1 **Monkey Wrench,** length, 10 inches.
1 **Slim Taper File,** length, 5 inches.
1 **Mill File,** length 8 inches.
1 **Iron File and Tool Holder.**
1 **Wrought Steel Nail Hammer.**
1 **Oval Head Marking Gauge.**
3 **Socket Firmer Chisels,** leather-tipped handles, one each size, ¼, ½ and 1 inch.
1 **Knurled Nail Set.**
1 **Champion Pattern Screw Driver,** 4-inch steel blade.
1 **Plumb and Level, polished cherry,** length, 28 inches.
1 **Carpenters' Pencil.**
1 **Rose Head Countersink Bit.**
1 **Snail Head Countersink Bit.**
1 **Square Reamer Bit.**

4-X-4701. Excelsior Tool Set. Complete with Chest. Retails at $25.00. **OUR PRICE** **$19.50**

"Our Gem" Tool Set

$6.50

Specially Selected for Household or Farm Use. Consists of 19 first-class tools for which you have daily requirement. Each tool is fully warranted, thoroughly practical, and will do the work for which it is designed.

1 **24-inch Crucible Steel Hand Saw.**
1 **Steel Nail Hammer.**
1 **Bit Brace,** 8-inch sweep.
3 **Auger Bits,** cast steel, double spur, one each size, ⅝, ½, ¾ inch.
4 **Gimlet Bits,** double cut, assorted sizes.
1¾-Inch **Leather-tipped Socket Firmer Chisel.**
1 **4-inch Screw Driver,** Champion pattern.
1 **7-inch Iron Block Plane.**
1 **2-foot 4-fold Boxwood Rule.**
1 **Shingling Hatchet.**
1 **Combination Anvil and Vise.** 1½-inch jaws.
1 **8-inch Monkey Wrench.**
1 **6-inch Steel Tri-Square.**
1 **4-inch Taper File with Handle.**

4-X-4601. "Our Gem" Tool Set. Complete. You would pay $7.50 at retail for tools of such high-grade quality as we offer above. **OUR PRICE** **$6.50**

HARDWARE SNAPS!

BLACKSMITHS' STOCKS AND DIES.

Cuts all right hand threads except No. 4-X-7332.

Catalog Number	Manufacturers No.	Cuts inch	No. of threads to inch	No. of taps in set	No. of dies in set	Price per set
4-X-7301	55	1/16 to 1/16	18-24 and 32	4	3 sets	$2.80
4-X-7303	53	1/16 to 1/16	16-20-24 and 32	4	4 sets	3.00
4-X-7305	53 A	1/16 to 1/16	18-20-24 and 32	4	4 sets	3.10
4-X-7307	41	1/2 to 1/8	16-20 and 26	6	3 sets	3.65
4-X-7309	41 C	1/2 to 5/16	12-14 and 16	6	3 sets	3.70
4-X-7311	41 D	1/2 to 3/8	12-16 and 20	6	3 sets	3.75
4-X-7313	37	5/8 to 7/16	14-18 and 22	6	3 sets	4.75
4-X-7315	37 A	5/8 to 5/16	12-14 and 16	6	3 sets	4.80
4-X-7317	37 C	5/8 to 1/4	11-12 and 16	6	3 sets	4.85
4-X-7319	34 C	3/4 to 3/8	10-11 and 12	3	3 sets	5.00
4-X-7321	34 B	3/4 to 5/16	12-14 and 16	3	3 sets	5.05
4-X-7323	34 A	3/4 to 5/16	10-12 and 14	3	3 sets	5.10
4-X-7325	32 A	3/4 to 5/16	10-11-12 and 14	4	4 sets	5.60
4-X-7327	32 B	3/4 to 1/4	10-12-14 and 16	4	4 sets	5.65
4-X-7329	23	1 to 3/8	9-10 and 14	3	3 sets	5.75
4-X-7331	23 A	1 to 5/8	8-10 and 12	3	3 sets	5.75
4-X-7332	42 A	1/2 to 3/16	Right hand 12 and 18 / Left hand 12	6	3 sets	3.95

BLACKSMITHS' STOCKS AND DIES.

With Stocks for single die. Cuts right hand threads only.

Catalog Number	Mfr. No.	Cuts inch	No. of threads to inch	No. of taps in set	No. of dies in set	Price per set
4-X-7337	51 A	1/2 to 5/16	12-14 and 16	3	3 sets	$4.45
4-X-7339	51 B	1/2 to 5/16	12-14-16 and 18	4	4 sets	5.00
4-X-7341	60	3/4 to 5/8	10-12-14 and 18	6	4 sets	7.25
4-X-7343	27	3/4 to 1/8	10-12 and 16	6	3 sets	7.30
4-X-7345	27 B	3/4 to 5/16	10-11-12-14 and 16	5	5 sets	8.40
4-X-7347	27 C.	3/4 to 1/4	10-11-12-14-16 and 18	6	6 sets	9.50
4-X-7349	27 D	3/4 to 3/16	10-11-12-14-16-18 and 20	7	7 sets	10.65
4-X-7351	27 A	3/4 to 3/8	10-11 and 12	6	3 sets	7.35
4-X-7353	19 B	1 to 1/2	8-9-10 and 11	4	4 sets	10.00
4-X-7355	19 C	1 to 7/16	8-9-10-11 and 12	5	5 sets	11.75

WOOD SCREWS.

Flat head bright wood screws, cold forged, are stronger, hold better and are inserted easier than other wood screws. Orders for less than a gross will be charged at the dozen price.

4-X-4029 — Length 1/4 inch

No.	Gross	Doz.
1	20c	2c
2	20c	2c
3	20c	2c

4-X-4031 — Length 3/8 inch

No.	Gross	Doz.
1	20c	2c
2	20c	2c
3	20c	2c
4	20c	2c

4-X-4033 — Length 1/2 inch

No.	Gross	Doz.
2	20c	2c
3	20c	2c
4	21c	2c
5	22c	2c
6	22c	2c

4-X-4035 — Length 5/8 inch

No.	Gross	Doz.
2	20c	2c
3	20c	2c
4	21c	2c
5	22c	2c
6	23c	2c
7	24c	2c

4-X-4037 — Length 3/4 inch

No.	Gross	Doz.
4	22c	3c
5	23c	3c
6	23c	3c
7	25c	3c
8	26c	3c
9	27c	3c
10	30c	3c

4-X-4039 — Length 7/8 inch

No.	Gross	Doz.
5	23c	3c
6	25c	3c
7	27c	3c
8	27c	3c
9	29c	3c
10	31c	4c
12	37c	4c

4-X-4041 — Length 1 inch

No.	Gross	Doz.
5	24c	3c
6	25c	3c
7	29c	3c
8	29c	3c
9	30c	3c
10	32c	3c
12	38c	4c
14	46c	5c

4-X-4043 — Length 1 1/4 inch

No.	Gross	Doz.
7	30c	4c
8	31c	4c
9	32c	4c
10	35c	4c
12	42c	6c
14	51c	6c
16	70c	6c

4-X-4045 — Length 1 1/2 inch

No.	Gross	Doz.
8	35c	4c
9	37c	4c
10	38c	4c
12	45c	5c
14	56c	6c
16	80c	8c

4-X-4047 — Length 2 inch

No.	Gross	Doz.
10	$0.47	4c
12	.56	6c
14	.72	7c
16	1.10	10c
18	1.20	13c

4-X-4049 — Length 2 1/2 inch

No.	Gross	Doz.
12	$0.74	7c
14	.80	8c
16	1.05	10c
18	1.32	14c

4-X-4051 — Length 3 inch

No.	Gross	Doz.
14	$1.00	10c
16	1.20	12c
18	1.60	15c

ROUND AND FLAT HEAD STOVE BOLTS.

3-16 INCH DIAMETER

Length, inch	1/2	5/8	3/4	7/8	1	1 1/4	1 1/2	1 3/4	2	2 1/2	3
Price per 100	32c	32c	32c	35c	35c	38c	42c	44c	45c	50c	57c

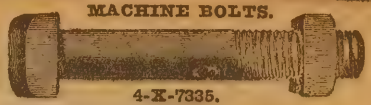
1/4 INCH DIAMETER

Length, inch	5/8	3/4	7/8	1	1 1/4	1 1/2	1 3/4	2	2 1/2	3
Price per 100	45c	46c	47c	48c	52c	55c	57c	60c	68c	75c

5-16 INCH DIAMETER

Length, Inch	3/4	7/8	1	1 1/4	1 1/2	1 3/4	2	2 1/2	3
Price per 100	66c	68c	70c	72c	75c	81c	87c	93c	$1.02

MACHINE BOLTS.



4-X-7335.

1-4 INCH DIAMETER BOLTS

Length, in.	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6	6 1/2	7
Per 100	$1.28	$1.28	$1.34	$1.40	$1.45	$1.50	$1.58	$1.95	$2.04	$2.10	$2.18	$2.25	$2.16

5-16 INCH DIAMETER BOLTS

Length, in.	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6	6 1/2	7
Per 100	$1.50	$1.50	$1.59	$1.68	$1.77	$1.86	$1.95	$2.45	$2.55	$2.65	$2.75	$2.88	$2.98

3-8 INCH DIAMETER BOLTS

Length, Inch	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Per 100	$1.80	$1.80	$1.92	$2.04	$2.16	$2.28	$2.40
Length, Inch	4 1/2	5	5 1/2	6	6 1/2	7	8
Per 100	$3.03	$3.17	$3.30	$3.45	$3.60	$3.75	$4.00

1-2 INCH DIAMETER BOLTS

Length, Inch	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2
Per 100	$3.24	$3.44	$3.70	$3.93	$4.17	$4.41	$4.64	$4.88	$5.10
Length, Inch	6	6 1/2	7	8	9	10	11	12	
Per 100	$5.34	$5.58	$5.81	$6.27	$6.75	$7.20	$7.68	$8.15	

CARRIAGE BOLTS.

4-X-7353. These have oval heads, square shoulders, perfect thread with forged nuts. Will sell 50 bolts at one-half 100 price.

3-16 or 1-4 inch diameter. 100 bolts in a package. (Always state size bolt wanted.)

Length, Inch	1 1/4	1 1/2	1 3/4	2	2 1/2	3	3 1/2	4	4 1/2
Per 100	80c	80c	90c	90c	98c	$1.05	$1.14	$1.21	$1.29
Length, Inch	5	5 1/2	6	6 1/2	7	8			
Per 100	$1.38	$1.45	$1.55	$1.95	$2.05	$2.25			

5-16 Inch Diameter. 50 Bolts in a Package. (Be sure to state length wanted.)

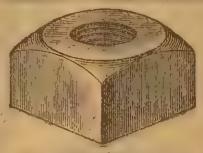
Length, Inch	1 1/4	1 1/2	1 3/4	2	2 1/2	3	3 1/2	4	4 1/2
Per 100	$1.14	$1.14	$1.23	$1.23	$1.34	$1.43	$1.52	$1.62	$1.71
Length, Inch	5	5 1/2	6	6 1/2	7	7 1/2	8		
Per 100	$1.80	$1.92	$2.00	$2.54	$2.64	$2.76	$2.88		

3-8 Inch Diameter. 50 Bolts in a Package. (Be sure to state length wanted.)

Length, Inch	1 1/4	1 1/2	1 3/4	2	2 1/2	3	3 1/2	4	4 1/2
Per 100	$1.53	$1.53	$1.67	$1.67	$1.80	$1.92	$2.06	$2.18	$2.31
Length, Inch	5	5 1/2	6	6 1/2	7	7 1/2	8		
Per 100	$2.44	$2.57	$2.70	$3.25	$3.55	$3.72	$3.84		

1-2 Inch Diameter. 50 Bolts in a Package. (Be sure to state length wanted.)

Length, Inch	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2
Per 100	$3.15	$3.15	$3.15	$3.15	$3.45	$3.70	$3.98	$4.26
Length, Inch	5	5 1/2	6	6 1/2	7	7 1/2	8	8 1/2
Per 100	$4.50	$4.80	$5.07	$5.34	$5.63	$5.90	$6.16	$6.44



BLANK SQUARE NUTS.

4-X-7361.

Bolt, Inches	No. in lbs.	Price Blank Per lb.
1/4	74	17c
5/16	39	15c
3/8	21	12c
7/16	13	12c
1/2	12	11c
9/16	7	10c
5/8	6	10c
3/4	3	10c
7/8	2	9c
1	2	9c

THREADED SQUARE NUTS

4-X-7363.

Bolt, Inches	No. in lbs.	Price Threaded per lb.
1/4	74	20c
5/16	39	18c
3/8	21	14c
7/16	13	14c
1/2	12	13c
9/16	7	13c
5/8	6	12c
3/4	3	11c
7/8	2	10c
1	2	10c

WROUGHT IRON WASHERS.

4-X-7359. These washers are made to easily fit the size or bolt given.

Bolt. ins.	No. in lb.	Per lb.
3/16	400	15c
1/4	139	12c
5/16	113	11c
3/8	68	11c
1/2	26	10c
5/8	13	10c
3/4	10	9c
7/8	9	9c
1	6	9c

CARPET TACKS.

Cut Tacks.

4-X-4023. Medium Heads, Sharp Point Blued Iron Cut Carpet Tacks.

Size.	Length Inches.	Price per doz. Papers.
2 ounces	1/4	11c
4 ounces	7/16	14c
6 ounces	1/2	17c
8 ounces	9/16	20c
10 ounces	5/8	26c
12 ounces	11/16	31c

These Bargains Offer Big Economy!

Mixed Bolts

50 Pounds

$3.25

A wonderful bargain in mixed bolts of all sizes and descriptions, such as machine, carriage, stove and plow bolts in all diameters, up to ⅞ inch and 8 inches in length. No farm, factory or shop should be without this assortment. Stop and realize the time and money you can save by having 50 or 100 pounds of these mixed bolts on hand.

No. 4-X-4081. 50 pounds..... **$3.25**

No. 4-X-4082. 100 pounds..... **$6.25**

MIXED RIVETS

98c

20 Lbs.

Brand new mixed rivets, consisting of wagon makers', tinners', cornice plow, round and flat heads. Ranging in size from ½ in. to 4½ in. in length.

4-X-135—Per 20-lb. package.....98c

MIXED TACKS

53c

10 Lbs.

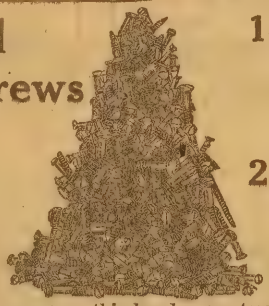
A special assortment of tacks, consisting of carpet, bill posters and upholsterers' trimmers' tacks, put up in 10-lb. pkg. An assortment to meet the needs of every household.

4-W-9900—10-pound package.....53c

4-X-9900—10-pound package.....53c

Mixed Wood Screws

You Need Them Every Day!



10 Pound Box

60c

25 Pound Box

$1.25

You will save more money on this handy assortment of wood screws than the low price we are asking during this sale. The assortment contains all bright new screws including round and flat heads from smallest sizes. All the screws constantly needed about the farm and home—always the right screw when you need it most. An excellent assortment for every purpose.

4-X-8042.
10-lb. box **60c**
25-lb. box **$1.25**

20 Assorted Coil Springs

Here is another assortment, a wonderful bargain containing 20 assorted coil springs made of the best tempered steel. They can be used for almost anything, for your binder, mowers, and other implements, for screen doors; in fact, wherever a coil spring is required. This assortment consists of 20 assorted expansion and compression springs ranging in diameter from ¼ to ⅝. Weight about 1¼ lbs.

LOT NO. 4-X-8046. COMPLETE ASSORTMENT..... **60c**

Cobbler Outfit

Complete

$1.95

A Necessity in Every Home

Lot No. 4-X-200. Reversible iron stand; men's, boys', women's and child's lasts; hammer, knife, sewing awls, hafts, needles, rivets, heel plates, leather and rubber cement, clamp, punch, soldering, copper, solder, resin, tin, thread and wax; bored; shipping weight 10 lbs. Price..... **$1.95**

TESTED CABLE LOG CHAINS

Made of the best grade tested cable chain, fitted with hooks and swivels. Length 14 feet with grab hook on one end, large round hook on the other end, swivel in center. Size given is diameter of iron from which the links are made.

4-X-7147. Tested Steel Log Chains.

Size, inches	¼	5/16	⅜	½	⅝
Weight, lbs.	11	17	23	41	60
Price	$1.85	$2.45	$3.00	$5.15	$7.35

Tested Cable Coil Chain

4-X-7031. Short, straight, links. Made of high grade iron of great toughness and guaranteed full size.

Guaranteed to be strictly first class in every particular.

Size, inch	3/16	¼	5/16	⅜	7/16	½	⅝	¾
Approx. Wt. per ft. lbs.	⅛	¾	1¼	1¾	2	3½	5	6
Peer foot	9c	12c	17c	20c	23c	39c	58c	65c

Wrought Iron Chain Repair Links

4-X-7034. Used to replace broken links. Made full size of regular chain iron.

Size, inches	3/16	¼	5/16	⅜	½
Price per dozen	6c	8c	13c	18c	30c

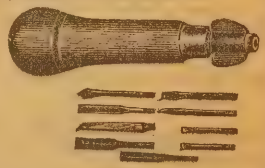
Round Chain Hooks

4-X-7045. Forged from the highest grade chain steel.

For chain, inches	5/16	⅜	½
Each	11c	16c	26c

Utility Tool Set

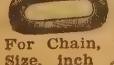
$1.15



Handy Tools for All Work

4-X-5963. Set consists of: 12 tools specially selected, forged from high grade tool steel properly tempered. Polished cocobola handle, improved nickel plated chuck. Each tool is nicely finished and guaranteed to give entire satisfaction. Price.....$1.15

Malleable Repair Links



4-X-7036. Can be applied without tools. These links combine simplicity and strength.

For Chain, inch	3/16	¼	5/16	⅜	½
Size, inch	5	5	6	6	7
Per dozen	65c	68c	85c	87c	$1.35

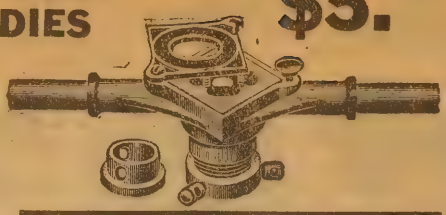
Grab Chain Hooks

4-X-7047. Carefully forged from the highest grade chain steel.

For Chain, inch	5/16	⅜	½
Each	11c	16c	26c

MALLEABLE PIPE STOCKS AND SOLID STEEL DIES

$5.50



In the manufacture of the dies it has been our aim to furnish a die of unusual cutting qualities. To do this it has been necessary to use a higher grade of steel than has heretofore been employed in the manufacture of pipe dies. We will guarantee that every die has a perfect clearance and will cut a clean thread. When cutting threads use plenty of oil. Lard oil is recommended for this purpose.

4-X-2801. Set No. 0.

Pipe size of dies, regular set, inches	⅛	¼	⅜	½
Dimensions of dies, inches	2x2x½			
Price per set, complete with dies	$5.50			

4-X-2802. Set No. 1.

Pipe size of dies, regular set, inches	¼	⅜	½	¾	1
Dimension of dies, inches	2½x2½x¼				
Price per set, complete with dies	$7.25				

4-X-2803. Set No. 1½.

Pipe size of dies, regular set, inches	¾	1	1¼
Dimension of dies, inches	3x3x¾		
Price per set, complete with dies	$6.60		

4-X-2804. Set No. 1¾.

Pipe size of dies, regular set, inches	1	1¼	1½
Dimension of dies, inches	3x3x¾		
Price per set, complete with dies	$6.75		

4-X-2805. Set No. 2.

Pipe size of dies, regular set, inches	1¼	1½	2
Dimension of dies, inches	4x4x⅞		
Price per set, complete with dies	$10.00		

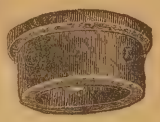
4-X-2806. Set No. 3.

Pipe size of dies, regular set, inches	2½	3
Dimension of dies, inches	5x5x1¼	
Price per set, complete with dies	$24.25	

EXTRA DIES AND GUIDES.

4-X-2808. These can be furnished either right or left hand thread. In ordering be sure and state which. Unless otherwise specified dies with right hand threads will be shipped.

Dimension of Dies, inches	Pipe Size of Dies	Price of Dies	Price of Guides
2 x2 x ½	⅛, ¼, ⅜, ½, ¾	$0.97	$0.21
2½x2½x ¾	⅛, ¼, ⅜, ½, ¾, 1	1.10	.28
3 x3 x ¾	⅛, ¼, ⅜, ½, ¾, 1, 1¼, 1½	1.39	.42
4 x4 x ⅞	½, ¾, 1, 1¼, 1½, 2	1.76	.53
5 x5 x1¼	2½, 3, (right hand only)	6.20	1.40



ECONOMY PIPE STOCKS AND DIES

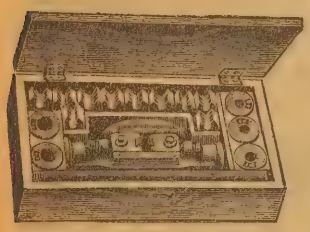
A First Class Tool Guaranteed to Give Good Satisfaction. Economy Dies are made of four cutters of the best tool steel interlocked with two homogeneous steel plates. The hollow steel handles are knurled and finely finished. **The Economy Dies** afford a greater clearance for chips, and are guaranteed to cut perfect threads.

No.	Size No.	Cuts Pipe Inches	Dimension of Dies In.	Price Per Set
4-X-2810	0	⅛, ¼, ⅜, ½,	2x2x½	$4.45
4-X-2811	1	¼, ⅜, ½, ¾, 1	2½x2½x¾	6.00
4-X-2812	1A	½, ¾, 1	2½x2½x¾	4.40
4-X-2813	1½	¾, 1, 1¼	3x3x¾	5.40
4-X-2814	1¾B	½, ¾, 1, 1¼, 1½	3x3x¾	7.40
4-X-2815	2	1¼, 1½, 2	4x4x⅞	8.00
4-X-2816	2B	¾, 1, 1¼, 1½, 2	4x4x⅞	10.80

EXTRA DIES AND BUSHINGS FOR ECONOMY PIPE STOCKS AND DIES.

	Size Number	Threads Pipe Inches	Dimension of Dies Inches	Price of Dies	Price of Bushings
4-X-2818	0	⅛, ¼, ⅜, ½	2x2x½	$0.80	$0.25
4-X-2819	1 and 1A	¼, ⅜, ½, ¾, 1	2½x2½x¾	.95	.35
4-X-2820	1½ and 1¾B	¼, ⅜, ½, ¾, 1, 1¼, 1½	3x3x¾	1.15	.45
4-X-2821	2 and 2B	¼, ⅜, ½, ¾, 1, 1¼, 1½, 2	4x4x⅞	1.65	.60

ARMSTRONG PATTERN ADJUSTABLE STOCK AND DIES FOR THREADING PIPE



The dies are standard in size and are easily adjusted to the variations and size of pipe. The taper at the entrance of the first few threads is greater than the standard taper, thus forcing six of the teeth of the die to do the work of the cutting instead of two or three as in the ordinary die. This causes them to start on the pipe very easily, even though it is burred considerably. **Each set is finely finished and packed in a hardwood box.**

4-X-2823. Set No. 2. Size of dies, inches, ¼, ⅜, ½, ¾, 1. Weight per set 15 lbs. Price complete $8.30
Extra pipe dies from ⅛ to 1" each size $1.40

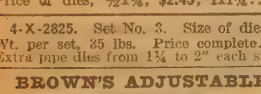
4-X-2824. Set No. 2½. Dies in this set are double-ended. Sizes ½x¾ and 1x1¼. Weight of set 20 lbs.
Price, complete $9.70
Price of dies, ½x¾, $2.45; 1x1¼ 2.45

4-X-2825. Set No. 3. Size of dies, inches, 1¼, 1½, 2. Wt. per set, 35 lbs. Price complete $12.50
Extra pipe dies from 1¼ to 2" each size 3.15

4-X-2826. Set No. 6. Dies in this set are double-ended. Sizes 2½x3. Weight per set, 72 lbs.
Price complete $31.20

4-X-2827. Set No. 7 contains four double-ended dies 2½x3, and four double-ended dies 3½x4. Weight 110 lbs.
Price complete $38.25

BROWN'S ADJUSTABLE PIPE TONGS, 58c.



4-X-2829. Made of solid steel drop forged.

Size No.	1	1½	4
Pipe sizes	½ to ¾	⅝ to 1	1¼ to 3
Price	$0.58	$0.69	$2.55

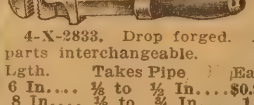
PIPE TAPS AND REAMERS.

Made of high grade tool steel, each tool fully guaranteed.

4-X-2831. Pipe-Tap
4-X-2832. Pipe Reamer.

⅛"	$0.40	½"	$0.79	1¼"	$2.10
¼"	.46	¾"	1.10	1½"	2.75
⅜"	.64	1"	1.69	2"	3.85

STILSON PIPE WRENCHES.



4-X-2833. Drop forged. All parts interchangeable.

Lgth.	Takes Pipe	Each
6 In.	⅛ to ½ In.	$0.90
8 In.	⅛ to ¾ In.	1.00
10 In.	⅛ to 1 In.	1.15
14 In.	¼ to 1½ In.	1.60
18 In.	¼ to 2 In.	2.30
24 In.	¼ to 2½ In.	3.30

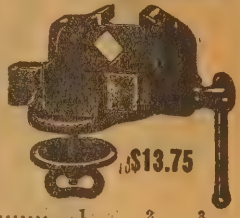
CYCLONE SPRAYER 40c

The Cyclone Sprayer is unusually well made—simple and efficient. The pump is made of heavy tin and the reservoir of heavy galvanized iron. Capacity of reservoir about one quart.

For spraying shrubbery and truck gardens. This sprayer will give long, satisfactory service. Sprays a medium mist up, down or in any position.

No. 4-X-931. Cyclone Sprayer. Shipping weight about 3 pounds. Price, each 40c

SMITH'S COMBINATION PIPE VISES.



$13.75

6-X-2839. Can be used as a swivel or stationary bottom. Pipe jaws are reversible. Vise can be used either for pipe or as a parallel machinist's vise.

Size No.	1	2	3
Weight, lbs.	45	70	105
Capacity, inches	½ to 2	¼ to 3	⅛ to 4
Width of jaw, inches	3½	4	4¾
Price, each	$13.75	$19.00	$27.50

OPEN HINGE MALLEABLE PIPE VISES.

$3.60

4-X-2841. Made with steel jaws, which are interchangeable. Vise is self locking, heavily constructed. The jaws and every part of vise are fully guaranteed.

Size No.	1	2
Cap., in.	⅛ to 2¼	¼ to 3½
Price, each.	$3.60	$5.35

BARNES' THREE WHEEL PIPE CUTTERS

4-X-2843. Made of malleable iron. Steel pins and cutting wheels are made of highest grade crucible steel, oil tempered. This style cutter is especially suited to use in that class of work where it is impossible to revolve cutter entirely around pipe.

Size No.	1	2	3
Cuts pipe, inches	⅛ to 1	½ to 2	1½ to 3
Price, each	$2.60	$3.46	$5.75
Extra wheels	.16	.18	.23

SAUNDERS' PATTERN PIPE CUTTER

4-X-2845. Is suitable for work where the cutter can be revolved around the pipe and leave practically no burr. Pins and cutter wheels are made of crucible steel, tempered.

Size No.	1	2	3	4
Cuts pipe, inches	⅛ to 1	1 to 2	2 to 3	2½ to 4
Price, each	$2.10	$3.12	$7.65	$12.85
Extra wheels	.18	.22	.42	.45

TRIMO PIPE WRENCHES.

4-X-2847. Drop forged from bar steel, removable jaw and nut. Are made with round top and bottom, threads guaranteed not to strip or burr. All the parts are interchangeable and can be renewed at small expense.

Lgth In.	Takes Pipe In.	Price Each	Lgth In.	Takes Pipe In.	Price Each
6	⅛ to ½	$1.05	18	½ to 2	$2.60
8	⅛ to ¾	1.15	24	¼ to 2½	3.74
10	⅛ to 1	1.27	36	½ to 3½	6.93
14	¼ to 1½	1.80	48	1 to 5	10.28

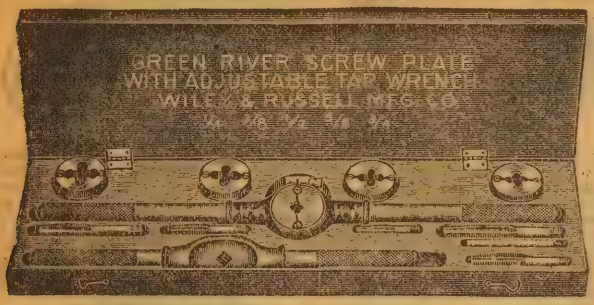
HARRIS REVERSIBLE CHAIN WRENCH.

WITH CABLE CHAIN.

4-X 2508 — Steel Handle

Lgth., in.	20	27	37	44½	50½	64½
Cap., in.	⅛ to 1½	¼ to 2½	¾ to 4	1 to 6	1½ to 8	2 to 12
Price, ea.	$1.32	$1.95	$2.65	$3.32	$3.90	$6.84

$15.00 SCREW PLATES $15.00



WILEY & RUSSELL'S GREEN RIVER SCREW PLATES. The dies are adjustable for work and make bolts and nuts fit tightly or loosely as may be required. It does its work with a single cut. Sets are furnished $\frac{1}{32}$ inch over size "V" thread, which fits all standard carriage and machine bolts.

4-X-7101. No. 1124; 5 sizes, ¼", ⅜", ½", ⅝", ¾" taper taps; dies and guides 2 and $\frac{3}{16}$" outside diameter; stock, 22" long; adjustable tap wrench, 15" long. Weight, 11 lbs. Complete in hardwood box. Price..... **$15.00**

4-X-7103. No. 1104; 7 sizes, ¼", $\frac{5}{16}$", ⅜", $\frac{7}{16}$", ½", ⅝" Taper taps; dies and guides, 2 and $\frac{3}{16}$" outside diameter; stock, 22" long; adjustable tap wrench, 15" long. Weight, 16 lbs. Complete in hardwood box. Price..... **$16.75**

4-X-7105. No. 1112; 9 sizes, ¼", $\frac{5}{16}$", ⅜", $\frac{7}{16}$", ½", ⅝", ¾", ⅞", 1", Taper taps; dies and guides, 2 and ¾" outside diameter; stock, 29" long, 2 adjustable tap wrenches, 11½" and 19½" long. Weight, 32 lbs. Complete in hardwood box. Price..... **$28.50**

$6.50 LITTLE GIANT SPLIT DIE SCREW PLATES $6.50

Round adjustable dies, $\frac{1}{16}$ inch diameter. Each set complete with adjustable tap wrench, neatly packed in a velvet lined case. Small figures indicate number of threads. Dies cut exact sizes.

4-X-7111. 5 Taps, 5 dies, Stock and Adjustable Tap Wrench.
Cutting 4^{40}, 6^{32}, 8^{32}, 10^{24}, 12^{24}. Price..... **$6.50**

4-X-7113. 5 Taps, 5 Dies, Stock and Adjustable Tap Wrench.
Cutting $\frac{1}{4}^{20}$, $\frac{5}{32}^{32}$, $\frac{3}{16}^{24}$, $\frac{7}{32}^{24}$, $\frac{1}{4}^{20}$. Price..... **$6.60**

4-X-7115. 6 Taps, 6 Dies, Stock and Adjustable Tap Wrench.
Cutting, 4^{40}, 6^{32}, 8^{32}, 10^{24}, 12^{24}, 14^{20}. Price..... **$7.75**

4-X-7116. 6 Taps, 6 Dies, Stock and Adjustable Tap Wrench.
Cutting, $\frac{1}{4}^{40}$, $\frac{5}{32}^{32}$, $\frac{3}{16}^{24}$, $\frac{7}{32}^{24}$, $\frac{1}{4}^{20}$, $\frac{5}{32}^{20}$. Price..... **$7.80**

4-X-7117. 7 Taps, 7 Dies, Stock and Adjustable Tap Wrench.
Cutting, $\frac{7}{64}^{56}$, $\frac{1}{4}^{40}$, $\frac{5}{64}^{40}$, $\frac{5}{32}^{32}$, $\frac{3}{16}^{24}$, $\frac{7}{32}^{24}$, $\frac{1}{4}^{20}$. Price..... **$8.75**

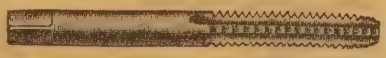
4-X-7119. 10 Taps, 10 Dies, Stock and Adjustable Tap Wrench. Cutting, 2^{56}, 3^{48}, 4^{40}, 5^{40}, 6^{32}, 8^{32}, 10^{24}, 12^{24}, 14^{20}, 16^{18}. Price..... **$11.75**

MACHINISTS' HAND TAPS

Size up to $\frac{11}{32}$ inch. Shanks are full size of threads. Taps ⅜ and larger, shanks same size as bottom of thread. All taps are exact size to standard "V" thread.

4-X-7133.
Taper Taps

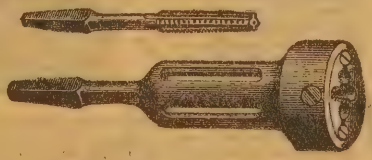
4-X-7135
Plug Taps



4-X-7137
Bottom Taps

Diameter Inch	Number of Threads	Price Each	Price Set of Three	Diameter Inch	Number of Threads	Price Each	Price Set of Three
$\frac{3}{16}$	24	$0.17	$0.50	$\frac{5}{16}$	11	$0.54	$1.62
$\frac{1}{4}$	20	.23	.69	$\frac{11}{16}$	11	.63	1.89
$\frac{5}{16}$	18	.30	.90	$\frac{3}{4}$	10	.73	2.16
$\frac{3}{8}$	16	.33	.99	$\frac{13}{16}$	10	.84	2.52
$\frac{7}{16}$	14	.36	1.08	$\frac{7}{8}$	9	.96	2.88
$\frac{1}{2}$	12	.42	1.26	$\frac{15}{16}$	9	1.08	3.24
$\frac{9}{16}$	12	.45	1.45	1	8	1.20	3.60

TAPS, DIES AND HOLDERS



Either Tap or Die will work in an ordinary Bit Brace, used largely for tapping Nuts and Threading Bolts.

Making perfect threads at a single cut.

Size, inches	$\frac{3}{16}$	¼	$\frac{5}{16}$	⅜	$\frac{7}{16}$
4-X-7139. Die, tap and holder, complete	$2.85	$2.85	$2.85	$3.35	$3.50
Size, inches	$\frac{3}{16}$	¼	$\frac{5}{16}$	⅜	$\frac{7}{16}$
4-X-7141. Die only	1.50	1.50	1.50	1.75	1.95
4-X-7143. Tap only	.75	.75	.80	.80	1.05
4-X-7145. Holders, separately, any size, each					80c

Unless otherwise ordered, we will send these taps and dies 1/32-inch over size V thread.

$32.50 WILEY & RUSSELL LIGHTNING FULL MOUNTED SCREW PLATES

A stock for each die, always ready for immediate use. No waiting until one mechanic is through so that another mechanic can use the stock. Saves time and money. Each set is fitted with an improved adjustable tap wrench. **Furnished 1-32 inch over size "V" thread, which fits all standard carriage and machine bolts.**

4-X-7107. Includes 7 stocks and complete dies and colletts. Cutting sizes: ¼, $\frac{5}{16}$, ⅜, $\frac{7}{16}$, ½, ⅝ and ¾ inch. **Complete with tap wrench and taps** in hardwood box. Wt. 23 lbs. Price..... **$32.50**

4-X-7109. Includes 9 stocks and complete dies and colletts. Cutting sizes: ¼, $\frac{5}{16}$, ⅜, $\frac{7}{16}$, ½, ⅝, ¾, ⅞ and 1 inch. **Complete with tap wrench and taps** in hardwood box. Wt. 46 lbs. Price.. **$49.95**

BLACKSMITHS' PLUG AND TAPER TAPS

4-X-7121. Right Hand Taper Tap. 4-X-7125. Right Hand Plug Tap.

Made of best grade tool steel. Each tap fully warranted.

Always mention number, size and number of threads when ordering.

Size Inch	Hand	No. of Threads to the Inch	Price Each	Size Inch	Hand	No. of Threads to the Inch	Price Each
1/8	Right	30 or 32	$0.20	1/2	Right	12-14-16 or 18	$0.42
3/16	Right	24 or 26	.22	9/16	Right	10-12 or 14	.46
1/4	Right	18-20-22-24 or 26	.28	5/8	Right	10-11-12 or 14	.50
5/16	Right	16-18-20 or 22	.30	3/4	Right	8-9-10 or 12	.65
3/4	Right	12-14-16 or 18	.34	7/8	Right	8-9 or 10	.75
7/16	Right	12-14-16 or 18	.38				

ADJUSTABLE TAP AND REAMER WRENCH.

4-X-7129. Strong and durable. Nicely finished. Guaranteed to hold taps and reamers tight.

Length, inches	11	15	21
Holds Taps	¼ to ½	¼ to ¾	¼ to 1
Price	$2.10	$2.70	$3.70

REAMERS FOR WOOD OR IRON

4-X-7131. Made of high grade tool steel, properly tempered. Used to enlarge holes where punching and drilling is not quite perfect. To be used in bit brace.

Size, inches	¼	$\frac{5}{16}$	⅜	$\frac{7}{16}$	½	$\frac{9}{16}$	⅝	$\frac{11}{16}$	¾
Price	40c	47c	51c	56c	65c	75c	84c	97c	$1.12

WHEEL BARROWS

Strong and durable and will give excellent service. The wheels are made with improved hubs, the spokes are held securely to the tire by countersunk head and cannot become loose. The frames and trays are heavy and properl braced and of the best construction known in the manufacture of wheel barrows. Guaranteed to give satisfactory service.

STANDARD RAILROAD OR DIRT BARROW

$3.50

4-X-10101. Full sized tray made of selected seasoned hardwood, strongly braced and well bolted. Has 16-inch improved steel wheel with malleable hub, 1¼ inch on tread. A strong, durable barrow which will give excellent satisfaction. Shipped knocked down. Weight about 45 lbs... **$3.50**

STEEL TRAY BARROW

$6.00

4-X-10115. Strong, Durable Barrow. Tray is pressed from a single sheet of 18-gauge steel without seam or lap, with edge turned over a 5/16-inch rod, which stiffens tray and gives it a round finished edge. Tray is mounted on triangular blocks which elevate the front and make it possible to carry a larger load without spilling. Has 16-inch improved steel wheel with malleable hub, 1¼-inch on tread. Shipped knocked down. Weight about 47 pounds..... **$6.00**

PAN TRAY BARROW

$8.00

4-X-10127. A Great Favorite with the Contractors. Tray is pressed from a single sheet of 16-gauge steel, wired and beaded on edge with 5/16-inch steel rod. The strongest and smoothest **Pan Tray Barrow** made. Size of tray 33 x 32 inches. Depth at wheel 11-inch. Depth at handle 7½-inch. Capacity 4 cubic feet. Strongly braced and bolted. 16-inch improved steel wheel with malleable hub, 1¼-inch on tread. Shipped knocked down. Weight about 60 pounds..... **$8.00**

MORTAR AND CONCRETE BARROW

$9.35

4-X-10103. For Mortar, Concrete, Coal, Stone, Cinders, Ashes, Etc. Heavy steel tray 24-inch wide, 36-inch long. Depth at wheel 14-inch. Depth at handles 8 inches. Hardwood handles 1¼ x 2½ x 60 inches. Heavy steel angle legs. Strongly braced and bolted. Extra well constructed throughout. 17-inch improved steel wheel with malleable hub. Tire 1½ inches x ⅜-inch with diameter of spokes ½-inch. Capacity 4 cubic feet. Shipped knocked down. Weight about 70 lbs..... **$9.35**

GARDEN BARROW

$5.20

4-X-10117. Made of Selected Hardwood. Strongly constructed with steel braces, painted and varnished in a superior manner. Removable sides. Bed, length 28 inches. Width at handles 20 inches, depth 12 inches. 20-inch improved steel wheel with malleable hubs. Tire 1½ inches wide. Weight about 55 pounds..... **$5.20**

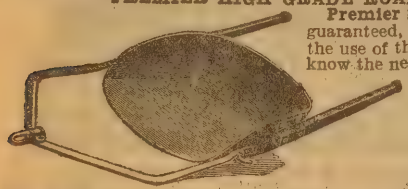
TUBULAR STEEL BARROW

Made entirely of steel. For handling coal, ashes, dirt, mortar, concrete, etc. Trays stamped from one piece of 15-gauge steel with beaded edge. Handles made of tubing bent around in front of wheel which permits forward dumping. Improved steel wheels with malleable hubs.

4-X-10129. Length on top 32-inch. Width on top 28-inch. Depth at wheel 7-inch. Depth at handles 5 inches. Capacity 3 cubic ft. Weight about 75 pounds..... **$10.30**

4-X-10131. Tubular Steel Wheel Barrow. Length on top 37-inch, width on top 29½ inches. Depth at wheel 9-inch. Depth at handles 6½-inch. Capacity 4 cubic feet. Weight about 80 pounds..... **$11.35**

PREMIER HIGH GRADE ROAD SCRAPERS



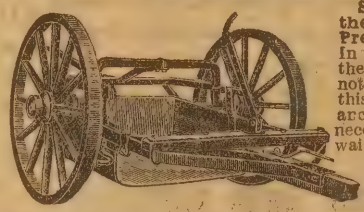
Premier Scrapers are the best and guaranteed, are heavy and adapted to the use of the contractor and others who know the necessity of good equipment. Bowls are made of No. 11 gauge, 40-point carbon steel While being made from a single sheet of steel they are **not made as a solid bowl.** The reason for riveting the sides and back together, is that the scraper is made deeper **without stretching** the steel at the rear end, where used as a fulcrum to throw the point out of the ground when filled, at which point it receives the **most wear**—under any condition **maintaining the original thickness of the steel**—is, we claim, a big point in favor of this scraper. The handle sockets placed on the side prevents wear when the scraper is being dragged back.

Runners are put on the bottom with **long tapered rivets,** the taper extending the **entire thickness** of runners, which insures a head as long as the runners last. The bails on No. 1 Scraper are made of 1½ x 5/16-inch steel; those on Nos. 2 and 3 Scrapers are of 1½ x ½-inch steel. Heavy swivel link on each bail. Handle sockets never need renewing. Smooth bottom scrapers are made without runners. Broad flat plate scrapers are made with a heavy, flat steel plate, riveted to and reinforces the bottom. Double runner scrapers have two steel runners, size 1½ x 5/16-inches, attached to bottom with countersunk rivets as above described.

Capacities: No. 1 holds 7 cubic feet and weighs about 100 pounds; No. 2 holds 5 cubic feet and weighs 90 pounds; No. 3 holds 3 cubic feet and weighs 80 pounds. **Shipped From Factory, Central Ohio**

		No. 3	No. 2	No. 1
4-X-10105.	Smooth Bottom Scraper	$ 9.15	$ 9.50	$ 9.90
4-X-10107.	Double Runner Scraper	9.75	10.15	10.50
4-X-10109.	Broad Flat Plate Scraper	10.50	10.85	11.25

PREMIER WHEEL ROAD SCRAPER



Strength and Simplicity are the Leading Features of the Premier Wheel Road Scraper. In the construction of this Scraper there is not a single part that cannot be duplicated at any blacksmiths; this feature is of the utmost importance to the contractor as any repairs necessary can be made at once. No waiting for special parts to come from the factory. The bowls are made from one piece of 5/16-inch 40-point heavy carbon steel. **Axles are turned up in a lathe** in as careful and perfect manner as axles for the finest vehicles, and are superior to hammered axles which are finished roughly with a reamer. The same thing relates to the boxes in which the spindles are inserted. The sand bands are fastened with three set screws that are fitted to the inside end of the hub to keep the dirt from reaching the spindle. The idea of the three set screws is to equalize the pressure and prevent breakage, as is often the case when one screw is used, bringing the pressure on one spot. **Wheels have Sarven Hubs.**

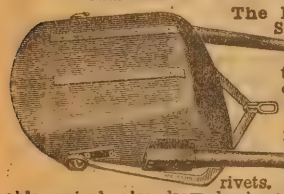
Price does not include Automatic End Gates. These we can furnish at price quoted below. In event they are wanted, they must be specified; otherwise, the scraper is shipped without. **Shipped From Cent. Ohio**

4-X-10119. Size No. 1. Capacity 9 cubic feet, 36-inch wheel, weight about 500 pounds..... **$54.75**

4-X-10121. Size No. 2. Capacity 13 cubic feet, 40-inch wheel, weight about 650 pounds..... **$68.75**

4-X-10123. Size No. 3. Capacity 17 cubic feet, 45-inch wheel, weight about 825 pounds..... **$78.50**

OHIO ROAD SCRAPER



The Best Low Priced Scraper Made. The form and construction is the same as our Premier High Grade Scrapers. Runners are ½-inch steel put on with straight rivets. The bail, malleable swivel, also draw hooks and body, are of somewhat lighter material than used in our Premier Scrapers. The capacities are the same. The No. 1 weighs about 80 pounds; No. 2 about 70 pounds and No. 3 about 66 pounds. Especially adapted for those who have only occasional use for scraper. **Shipped Cent. Ohio**

		No. 3	No. 2	No. 1
4-X-10111.	Smooth Bottom	$8.25	$8.60	$9.00
4-X-10113.	Double Runner	$8.65	$9.00	$9.40

DOAN DITCH SCRAPER

$9.10

Commonly called "back filler." Used to cut or fill ditches and leveling roads. Made of selected hardwood heavily strapped with ⅛-inch iron bands, and securely bolted. Hard steel bit made of No. 7 gauge steel. Fitted with regular plow handles and drawn by bars especially bent from steel 1¼x⅝ inches, to which is attached a heavy chain.

Shipped from Factory, Central Ohio

4-X-10125. Doan Scraper. Weight 83 pounds..... **$9.10**

CHICAGO TONGUE SCRAPER

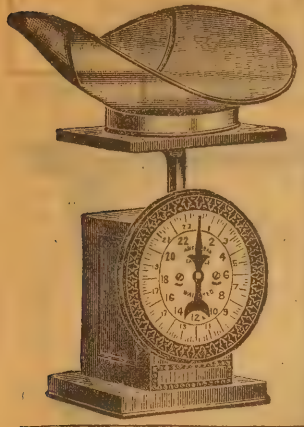
Used to cut or fill ditches and handling earth. Body is made of selected hardwood. Tongue and cross bars of thoroughly seasoned oak heavily strapped, securely bolted and riveted. The draw bars are made of extra quality steel, 1½x½ inches. Malleable iron shoes are used, which are superior to steel, being thicker and will last longer. Made with square holes for the shoulder of the bolt. When the nuts are tightened the bolt cannot turn. There is also a socket for the head of the bolt to rest in. Weight 135 pounds.

Shipped from Factory, Central Ohio.

4-X-10133. 48-Inch Chicago Tongue Scraper..... **$10.15**

HOUSEHOLD SCALES

Thousands of keen, thrifty housewives have learned the advantage of weighing their purchases and now know the convenience of these handy household scales. Make your selection and include one with your order.



24 lb. Capacity Vertical Dial $2.25

A strictly high grade scale for family use. Guaranteed to weigh accurately. The body is made of cold rolled steel, nicely nickel plated and enameled. Springs are made of high grade tempered steel. Equipped with tension screw for perfect regulating and balance. White enameled dial with graduations plainly marked. Capacity 24 pounds, by ounces. Shipping weight, 6 pounds.

4-X-10035. Price without scoop **$2.25**

4-X-10037. Price, with tin scoop **$2.70**

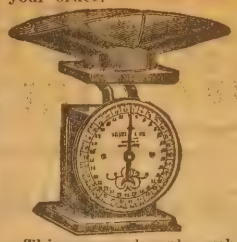
Family Scale

$2.45

Angle Dial

Capacity 24 lbs.

4-X-10001. A well made, dependable scale of unusual value for general family use. Body made of cold rolled steel. Nicely enameled. White enameled dial, slants on angle of 45 degrees, can be easily read at a glance. Capacity 24 pounds, by ounces. Shipping weight, 5 pounds. Each..... **$2.45**



$3.85

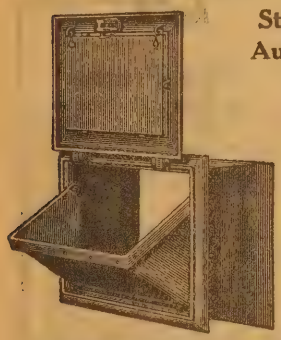
60 lb. Capacity Double Platform Supports

This splendid scale embodies every desired feature of workmanship and material. Guaranteed to weigh accurately. The body is made of heavy cold rolled steel, handsomely enameled and finished. The graduations are plainly marked and easily read. The double platform support is a desirable feature; this distributes the weight evenly and assists the scale in maintaining accurate weight. The platform is 7½ in. square. Capacity of scale, 60 lbs. by ounces. Shipping weight, 10 lbs.

4-X-10017. Price, without scoop. **$3.85**

4-X-10019. Price, with heavy tin scoop **4.60**

Coal Chutes



Standard Automatic and Plain

$16.00 and up

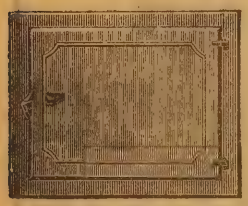
17-X-152. Designed to be placed in a cellar wall same as any window. These chutes serve as a substantial protection to you, appearing as a convenient opening for depositing coal, wood and other material into the basement. All modern buildings are equipped with chutes of this kind.

The body of chute is made of heavy steel; the door of strong gray cast iron. All parts are nicely painted before shipment. Hopper can be removed is desired. When the door closes, the hopper swings back into the chute and allows the door to close against the wall.

Size of Wall Opening

Size 24 in. wide, 17 in. high and 18 in. deep with hopper	$17.50
Size 33 in. wide, 22 in. high and 18 in. deep with hopper	32.00
Size 24 in. wide, 17 in. high and 18 in. deep without hopper	15.00
Size 33 in. wide, 22 in. high and 18 in. deep without hopper	27.50

Ash Pit Doors

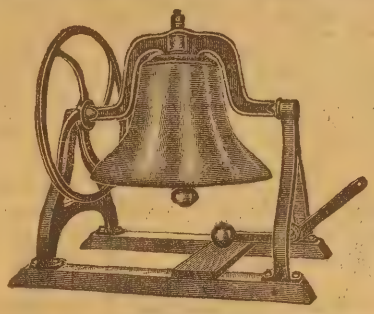


$1.70 and up

17-X-25. These ash pit doors are made of extra heavy case iron, easily fitted and absolutely tight. Furnished in black enamel.

Number	Opening Size	Price
1	8x 8	$1.80
2	8x10	2.25
3	10x12	3.60
4	10x14	4.00

School-Church and Factory Bells



$12.10 and up

These bells offer a great measure of protection in case of fire or danger.

Wood sills and iron rope wheels are furnished with 20 in. to 36 in. bells and sectional wood rope wheels with 38 in. to 48 in. bells. Made with best crystal composition. The tone and volume of sound is greater than can be produced by any other composition bell. Bells size 44 in. are mounted on special roller bearings to ring with ease and uniformity of stroke. Bells 24 in. and larger have adjustable springs so that the clapper strikes with sufficient force, then holding away so that the vibration and tone are uninterrupted. The prices below do not include tolling hammers. When tolling hammers are furnished there is an additional charge of $1.50.

4-X-10205. Crystaloid School House and Factory Bells.

No. Diam. Inch	20	22	24	26	28	30	32
Approx. Wt., lbs.—Bell and Mountings	165	205	250	350	450	550	630
Price F. O. B. Factory	$12.10	$15.95	$18.95	$27.00	$35.75	$44.10	$51.15

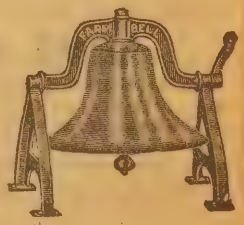
4-X-10207. Crystaloid Church Bells.

No. Diam., In.	24	26	28	30	32	34	36	38	40	44	48
Approx. Wt., lbs.—Bell & Mountings	260	365	465	570	640	765	950	1010	1300	1790	2280
Price F. O. B. Factory	$18.95	$27.00	$35.75	$44.10	$51.15	$61.25	$72.95	$85.00	$99.90	$134.95	$172.85

Designed Especially For Farm Use

Styles 1-2-3

A bell is a necessity on a farm. For with it an alarm can be sounded and distinctly heard for a great distance. These bells are made of a crystal composition. They have a clear tone and are best bells for the school, church, factory or farm manufactured.



Style 4

Thirty Days' Free Trial

Should any bell we send you prove unsatisfactory after you have given it a careful test and trial for thirty days, send it back and we will return the full purchase price, together with any transportation charges you have paid.

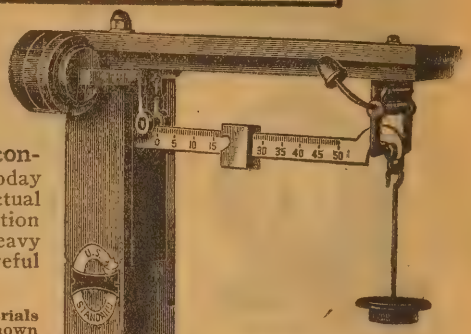
Size No.	1	2	3	4
Approximate Diameter	15	17	19	21
Approximate Weight	40	50	75	100
Price complete F. O. B. Chicago	$3.10	$3.90	$5.80	$7.60

GUARANTEED TO BE ACCURATE

PREMIER SCALES
HIGH GRADE PLATFORM TYPE

LOW PRICES MEAN BIG SAVINGS

ADJUSTED AND SEALED TO U.S. STANDARD WEIGHTS



Our Premier Platform Scales are built to stand the test of time, construction and workmanship throughout. There are many scales offered today at various prices that will weigh accurately when new, but we have found by actual test and comparison that in but a short time the incomplete method of construction results in serious inaccuracy when used to any great extent, especially where heavy weighing has been necessary. For constant severe service, we urge your careful consideration of the Premier Portable Platform Scale.

We furnish the Premier Platform Scale with either single or double beam. We urge you to consider the double beam scale, as it is a much better, more complete scale for general purpose use. With the double beam scale you have an extra beam for tare use. The single beam scales are limited in service and inconvient in weighing, whereas the double beam scale in the capacity you require will satisfactorily meet your every requirement on a platform scale. A comparison of the price table below will readily indicate to you that the difference is very small.

4-X-9924. With Double Ream.

Capacity, Lbs.	Size of Platform, In.	Shipping Weight	Price.
500	16½x24	159	$27.00
1000	17½x25	173	33.00
1500	20 x28	272	45.00
2000	25 x33	369	50.00
2500	25 x34	375	58.00

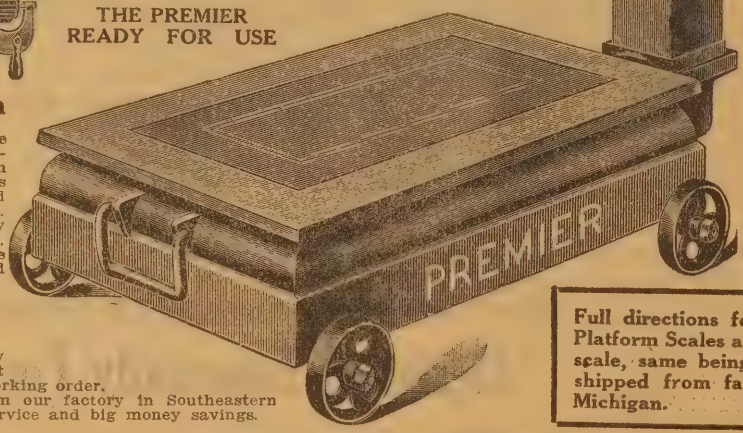
After careful examinations, tests and trials of every kind where scales of many well known makes were represented, we find year after year that the Premier Scale is always the most accurate under continued severe and heavy weighing. We are so positively certain that you will be pleased with any Premier you may choose, small or large, single or double beam, that we will gladly accept your order with the understanding that your scale may be returned within thirty days, which should be sufficient to learn of any possible defect. We also agree to replace any part that may become broken, caused by defective material or workmanship, without cost to you at any time within ten years after the purchase date.

4-X-9922. With Single Ream.

Capacity, Lbs.	Size of Platform, In.	Shipping Weight	Price.
500	16½x24	159	$24.95
1000	17½x25	173	31.50
1500	20 x28	272	42.75
2000	25 x33	369	48.45
2500	25 x34	375	56.00

$24.95

THE PREMIER READY FOR USE



The Double Beam

The small illustration above shows the double beam supplied on Premier Scale. Both the double and single beams are made of select brass, fitted with square brass sliding poise. The beam poises are carefully milled and highly polished. The notches and scale figures are quickly and easily read from any position.

The Frame

The frame, platform and levers are made of smooth gray iron of ample weight and strength, all iron parts being finished with black japan. Fitted with hardened flexible lever bearing loops and platform bearing feet. Pivots are of best tool steel, carefully tempered and ground to a knife edge. All wood parts are made of selected material, well finished and handsomely striped in gilt. Each scale is carefully boxed. We guarantee that they will reach you in the same splendid condition that they leave the factory. You will find them ready to give you the service and satisfaction you have a right to expect. Complete, comprehensive instructions easily understood by any one, are sent with each Premier Platform Scale. Every piece and part is easily assembled and is bound to fit together for accurate weighing. These simple instructions are so easily understood that it requires but a few moments of your time to have your scale ready for work.

Shipment

Premier Scales are carefully prepared for shipment so that they will arrive in perfect working order. They are shipped direct from our factory in Southeastern Michigan to you for quick service and big money savings.

Full directions for setting up Premier Platform Scales are furnished with each scale, same being carefully boxed and shipped from factory in southeastern Michigan.

ACME PORTABLE SCALES—GUARANTEED ACCURATE

The Acme Portable Scale is the best low priced scale ever offered. They will give you good service in accurate weight and meet every ordinary requirement. They are well made and carefully adjusted to U. S. standard weights and will weigh accurately to the full capacity of the scale. We strongly urge the purchase of one of these economical low priced scales for use where a high grade scale is not required; that is, if you need a platform scale ocasionally, and it is not subject to severe or continued usage, we recommend the Premier Portable Platform Scale. You will find our high grade Premier Platform Scale above at slightly advanced prices, which are guaranteed to give satisfactory service under most rigid tests.

4X9934. Acme Single Beam.

Capacity, Lbs.	Size of Platform, In.	Shipping Weight	Price, Single Beam.
500	15½x21	145	$24.50
1000	17 x24½	160	30.75
1500	18 x26	190	40.95

4X9934½. Acme Double Beam.

Capacity, Lbs.	Size of Platform, In.	Shipping Weight	Price Double Beam
500	15½x21	145	$25.75
1000	17 x24½	160	32.90
1500	18 x26	190	42.75

The material used in the construction of the Acme Portable Platform Scale is of unusually good quality. The castings are made of best gray iron. The lever pivots are made of good tool steel, drawn to a knife edge and carefully tempered. This assures a quick acting, sensitive scale. The beam and sliding poise are made of solid brass, carefully milled and highly polished. All Acme Portable Platform Scales are furnished complete with loose weight to balance up to their full capacity. Well finished in blue and nicely varnished. We furnish these scales in the single beam style only. Carefully boxed with complete, comprehensive instructions for setting up. Shipped direct to you from our factory in Southeastern Michigan.

$24.50

Ask for Our Bargain List of Rubber Belts

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

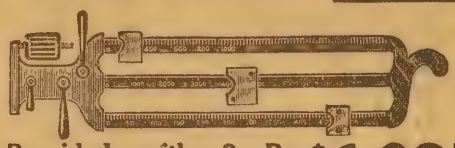
ACCURATE AND DURABLE

PREMIER STEEL SCALES

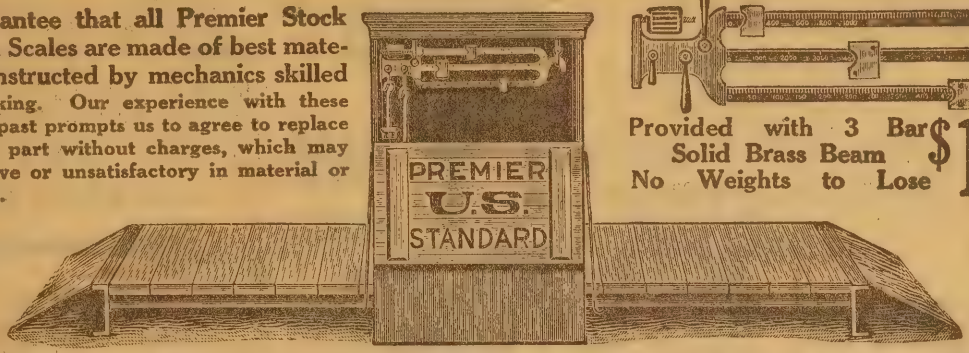
PIT AND PITLESS FOR STOCK AND WAGONS

SPLENDID IN CONSTRUCTION

We guarantee that all Premier Stock and Wagon Scales are made of best material and constructed by mechanics skilled in scale making. Our experience with these scales in the past prompts us to agree to replace any piece or part without charges, which may prove defective or unsatisfactory in material or workmanship.



Provided with 3 Bar Solid Brass Beam No Weights to Lose **$162.50**



Capacity 5 Tons

Capacity 5 Tons

THE BEAM—The combination three-bar solid brass beam is carefully graduated to full capacity of scale; no loose weights to get lost or out of seal. Upper bar is graduated by 10-pound marks to 2,000 pounds capacity. Lower bar is graduated to 500 pounds by 5-pound marks. The middle bar is graduated to balance the capacity of scale by 500-pound notches. Beam box is made of one-inch tongued and grooved lumber, well painted and provided with lock and key.

The Splendid Construction

The ends of the frame are made of heavy steel channel beams connected by tubular steel cross pieces secured at each corner by a strong bracket and bolted to a channel beam with three bolts and lock nuts. The levers are held by hardened loops and best tempered tool steel pivots. The "I" beams also are held in place by hardened bearing feet supported on bearings by best tempered tool steel pivots. The steel I-beam stringers that support the platform planks are rigidly secured together on both sides by tubular steel cross pieces.

PIVOT LOOPS—The bearing pivots are made of best tool steel tempered and ground to knife edge. Pivot loops are heavy in proportion to the strength required and are carefully hardened and ground. A frictionless surface where the knife edge pivots have their bearings. Simple directions for setting up. Complete with the exception of lumber for the platform or foundation.

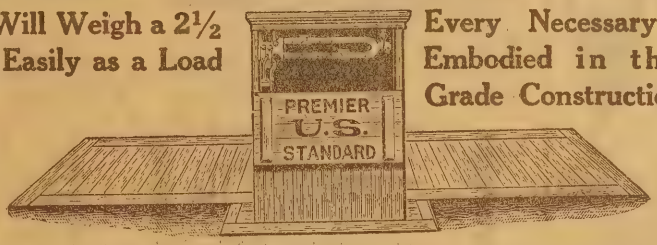
Capacity, 5 tons. Size of platform, 8 feet by 14 feet. Shipping weight about 1,100 pounds. Shipped from factory in Southeastern Michigan.

4-X-9806. Each.....$162.50

PREMIER TRUSSED STEEL LEVER PIT WAGON SCALE

Our Premier Pit Scale Will Weigh a 2½ lb. Crock of Butter as Easily as a Load of Corn, Etc., Etc.

Every Necessary Feature Embodied in the High Grade Construction **$102.00**



Considering the unusually low price at which we are offering this durable, dependable scale, it would be impossible for you to approach the quality at anywhere near this low price. Like all Premier Scales every possible care has been exercised in its construction. Every part, no matter how small, has been thoroughly tested and we feel safe in assuring you that this Premier Scale is the best of its kind offered today.

Full capacity double solid brass beam with no loose weights to become lost. Beam box is made of selected lumber, well covered with good paint and fitted with lock and key. Strong "T" shaped trussed levers. Best quality tool steel pivots. Platform size 8 ft. by 14 ft. Sealed U. S. Standard weights. Furnished complete with all metal or iron parts, including beam box. Shipped from factory in Southeastern Michigan.

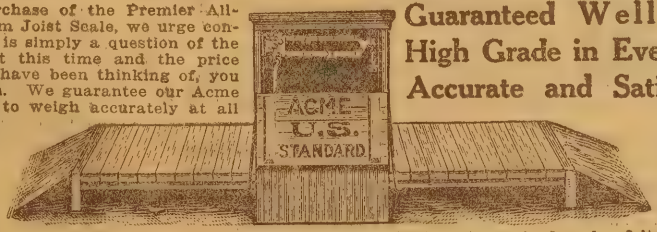
4-X-9907. 3-ton capacity Premier Pit Scale.....$102.00
4-X-9911. 5-ton capacity Premier Pit Scale..... 105.00

Timbers or planks for this scale are not included.

Our Premier Trussed Steel Lever Pit Wagon Scale must be installed carefully, tested and tried, to be appreciated. Have no hesitancy whatever in letting us send this scale to you, for in assuring you that you will be pleased and profited, we do so entirely at our risk. If after you have given the Premier a fair test and trial you find that it is not all we claim for it, write for return instructions and we will hand you back every penny of your money without quibble or argument.

ACME SEMI-STEEL PITLESS WAGON SCALES

Guaranteed Well Made High Grade in Every Way Accurate and Satisfactory **$126.00**



While we recommend the purchase of the Premier All-Steel Frame and the Steel I-Beam Joist Scale, we urge consideration of this offering. If it is simply a question of the amount you intend to invest at this time and the price of this scale is about what you have been thinking of, you could not make a better selection. We guarantee our Acme Semi-Steel Pitless Wagon Scale to weigh accurately at all times and we will replace without expense to you any part that may prove defective in material or workmanship. We are so certain you will be pleased with this scale that we will gladly accept your order with a distinct understanding that after you have given it a careful test and trial you find that it is not all we claim for it, write for return instructions and we will hand you back every penny of your money, holding you free from any expense of any kind.

Our Semi-Steel Pitless Wagon Scale is the best low-priced scale of its kind offered today, being well made in every particular and similar in construction to the Premier Pitless Scale above. We can safely assure you of the satisfaction you have a right to expect. The only difference between this scale and the Premier Pitless Scale above is that a full capacity double brass beam is used in place of the triple combination brass beam, and wood end sills are used in place of the steel stringers. Beam is graduated to full capacity of scale; no loose weights to get lost or out of seal. Upper bar is graduated to 1,000 pounds by 5-pound marks. The lower bar to the balance of the capacity by 500-pound marks.

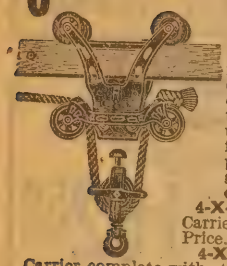
The platform is 8 ft. by 14 ft. Guaranteed to seal to U. S. Standard weights. Beam box made of good material, painted and provided with lock and key. Pivot loops of high grade steel, carefully hardened and ground. Printed instructions for setting up and installing are furnished. Scale complete with the exception of the platform planks, side and sills and platform stringer. Shipped from factory in Southeastern Michigan.

4-X-9802. Semi-Steel Pitless Scale, 5-ton capacity, shipping weight about 900 pounds. Price.... **$126.00**

HAY CARRIER TOOLS

DOUBLE SWIVEL HAY CARRIERS. With Improved Locking Device.

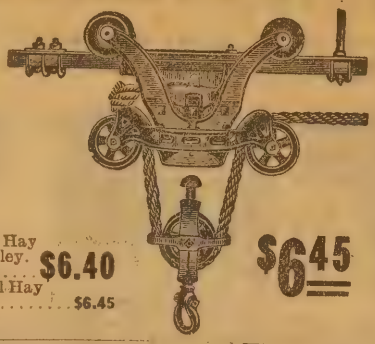
$6.40



Has but two pieces, which makes it an absolutely positive lock. No springs or unnecessary parts to get out of order. Will work either way, by changing pulley from one end of the barn to the other, making it unnecessary to untie the ropes from other pulleys. This simple method is a big feature not generally found in other carriers.

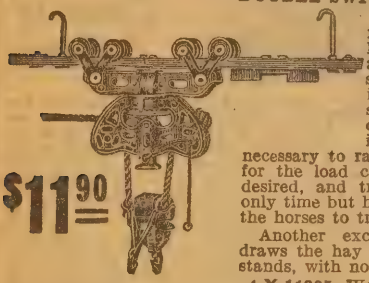
4-X-11301. Wood track double swivel Hay Carrier complete with stop and fork pulley. Price. **$6.40**

4-X-11303. Steel track double swivel Hay Carrier complete with stop and fork pulley. Price. **$6.45**



$6.45

DOUBLE SWIVEL SLING HAY CARRIER.



$11.90

Made of the best malleable iron, heavy and durable, simple in construction. The special feature of this swivel carrier is that often when the barn is empty it is not necessary to raise a load up to the track, for the load can be raised to any point desired, and tripped, thereby saving not only time but half the distance or more for the horses to travel.

Another excellent feature is that it draws the hay or grain direct as the load stands, with no twist in the rope.

4-X-11305. Wood tracks swivel sling carrier. Price. **$11.90**

4-X-11307. Steel track swivel sling carrier. Price. **$11.95**

$11.95

SNATCH PULLEY BLOCK.

4-X-11309. To shorten travel of horse without reducing the power. Horse travels only half the distance hay is carried. Frame is made of malleable iron with iron sheave. For use with manila rope only. Price, each . . . **$1.15**

IRON YOKE HAY FORK PULLEY.

4-X-11311. With loose hollow pin, hard maple sheave, 6 inch. Price, each. **32c**

WOOD FRAME HAY FORK PULLEY.

(Self Oiling.)

4-X-11313. Frame and sheave are made of the best hard maple, fitted with wrought iron yoke, malleable iron eye and swivel springs—the most durable hay fork pulley manufactured. Price, each. **32c**

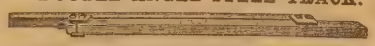
STEEL YOKE KNOT PASSING PULLEY.

4-X-11315. With maple sheave. 6 inch diameter. Price, each. **37c**

ROPE HITCH WITH SWIVEL HOOK.

4-X-11317. Made of Malleable iron. Will take rope up to 1 inch. Saves cutting or tying the rope. Price, each. **26c**

DOUBLE ANGLE STEEL TRACK.



4-X-11319. Made only in five and ten foot lengths. Furnished complete with couplings and bolts. Two end bumpers are furnished with track when 30 feet or more are ordered. Price, per foot. **19c**

STEEL TRACK HANGING HOOKS.

4-X-11321. For double steel angle track. Price, each **14c**

WOOD TRACK HANGING HOOKS.

4-X-11323. 14 inches along the bend. Price each. **13c**

FLOOR HOOKS.

4-X-11325. Used to screw to floor to hold pulleys. Diameter, ¾ inch. Price, each. **14c**

JOINED HANGING HOOKS.

4-X-11327. Used for hanging wood track to beams without using rafter brackets. Price, each. **17c**

RAFTER BRACKETS.

4-X-11329. For Hay carrier track. Price, each **6c**

EYE BOLTS.

4-X-11331. For fastening Hay Carrier Cable to end of barn. Has long threads to take up slack. Price, each. . . **42c**

HAY CARRIER ROPE

Good quality Manilla Rope suitable for Hay Carrier purposes. We furnish this rope in connection with Hay Carrier Outfits as described in our catalog. The ⅜" is used for the trip and the ¾" is generally used for the carrier, although in connection with our outfits, either the ⅞" or the 1" rope can be used.

2-X-11617.

Size, inches	¼	⅜	½	⅝	¾
Price, per foot	1c	3c	4½c	6½c	8½
Size, inches	⅞	1	1⅛	1¼	1½
Price, per foot	11½c	12½c	16½c	19c	27c

SELF-LOCKING SLING PULLEY.

4-X-11333. Can be used in connection with our Double Swivel Hay Carrier. The simplest and strongest sling pulley ever offered. It has no springs, and regardless of how large or how small the load of hay is in the wagon sling, it will lock at any place.

When the knob of the Sling Pulley enters the Hay Carrier, the entire weight of hay is on this knob and throws the lock against the rope between the two pulleys and when the load is dumped and Hay Carrier is returned and strikes the stop block, the knob drops, the sling pulley is unlocked and is ready for another load. Price. **$2.95**

SINGLE HARPOON HAY FORKS.

4-X-11335. Regulation size, made of best materials. Price, each **$2.80**

DOUBLE HARPOON HAY FORKS.

4-X-11337. Short tine, Double Harpoon Hay Fork, 25 inch tine, 16 inches between points. Made of best quality material. Price, each. . . **$2.20**

4-X-11339. Long tine, Double Harpoon Hay Fork, tines 30 inches long, 16 inches between points. Price, each. **$2.45**

4-X-11341. Double Harpoon Hay Fork, 34 inch tines, 22 inches between points. Designed for handling alfalfa and straw. Can be used, however, for handling any kind of hay. Price, each **$3.90**

HAY GRAPPLE FORKS.

The best and strongest Grapple Forks manufactured.

$7.80

4-X-11343. 4 tine Grapple Fork for regular work Price, each. . **$7.80**

4-X-11345. 6 tine Grapple Fork for short hay, loose straw. Price, each. **$9.65**

STANDARD ADJUSTABLE WAGON SLINGS.

Made for an 18 foot wagon rack. They can be made shorter for any size wagon by drawing the ropes through the wood bars and tying another knot on each side of wood bars. There is a center trip on all slings and they are fitted with the best and simplest lock.

An outfit generally consists of one sling pulley and three wagon slings, so as to take off an entire load in three lots. The trip rope is of proper length, permitting the sling to be easily tripped. Sling pulleys or sling carriers must be used with wagon slings.

4-X-11347. Length, 4 foot. Price, each, **$3.45**
4-X-11349. Length, 5 foot. Price, each **4.35**
4-X-11351. Length, 6 foot. Price, each **4.70**

GALVANIZED HAY CARRIER CABLE.

2-X-11353. ½ inch diameter, composed of 7 wires. Price, per foot **6c**

2-X-11355. Clamps for cable Hay carriers. Price, each. **9c**

2-X-11357. Collars for cable Hay carriers. Price, each. **23c**

Let Us Figure Your Lumber Bill

MONEY SAVED ENORMOUS STOCK BOUGHT CHEAPER THAN COST TO MAKE HAY CARRIERS

LOWEST PRICES! GREATEST STRENGTH. THEY SAVE YOU MONEY AND WORK

PRICE You no doubt know better than anyone else, the advantages of a Hay Carrier, but do you know that here you have the greatest bargain ever offered in this class of high grade farm equipment? We have purchased over 10,000 of these outfits, at a price below cost of material; that is why we undersell the world.

ECONOMY Every part of these outfits, from the smallest bolt up, were selected to stand the hardest usage. The whole affair is designed for the purpose by a great barn designer, so that you can get the smoothest running and easiest to operate hay carrier outfit.

The carriers are extra heavy and have no springs to get out of adjustment. The track is a double steel angle, and is furnished in 10 ft. lengths; the rope is of best quality, pure Manilla. Each outfit named below is furnished complete for the size barn specified. To save delay we strongly advise ordering any of the assortments thus described. The hay rope furnished is ¾ inch in diameter. Compare our assortments with others, and you will find that we furnish a more complete outfit than any other on the market.

BARGAINS THAT YOU CAN NOT AFFORD TO PASS. DECIDE NOW!

STEEL TRACK OUTFITS COMPLETE

4-X-11201. For 30 foot barn consisting of one double swivel hay-fork carrier, 30 feet of double steel angle track with couplings and bolts. Twelve rafter brackets. Twelve handing hooks, four floor hooks. One short tine double harpoon hay-fork. 3 steel yoke, knot passing pulleys. One hundred feet of ¾ inch Manilla rope. Forty feet ⅜ inch Manilla Trip rope. Price..... **$27.70**

The outfits below include the same equipment as 4-W-11201, but in greater quantities for larger barns.

4-X-11203. Complete outfit for 35 ft. barn, including 110 ft. of ¾ inch Manilla Hay rope, and 45 ft. of ⅜ inch Manilla Trip rope. Price..... **$29.45**

4-X-11205. Complete outfit for 40 foot barn, including 120 feet ¾ inch Manilla hay rope; 50 feet of ⅜ inch Manilla Trip rope. Price **$31.50**

4-X-11207. Complete outfit for 45 foot barn, including 130 feet of ¾ inch Manilla Hay rope, and 55 feet of ⅜ inch Manilla Trip rope. Price..... **$33.65**

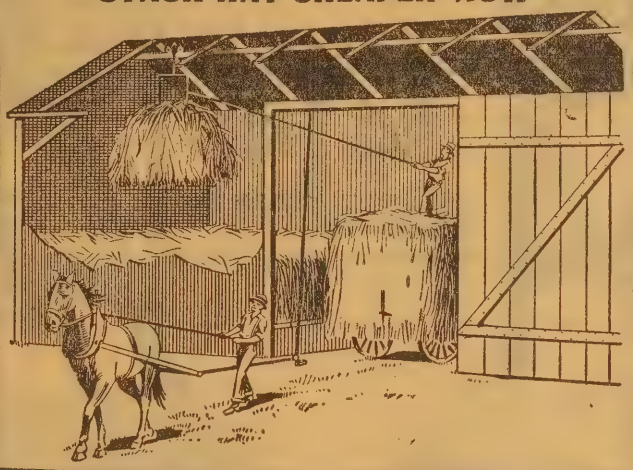
4-X-11209. Complete outfit for 50 foot barn including 140 feet of ¾ inch Manilla Hay rope, and 60 feet of ⅜ inch Manilla Trip rope. Price..... **$35.30**

4-X-11211. Complete outfit for 55 foot barn, including 150 feet of ¾ inch Manilla rope, and 65 feet of ⅜ inch Manilla Trip rope. Price..... **$37.85**

4-X-11213. Complete outfit for 60 foot barn, including 160 feet of ¾ inch Manilla rope, 70 feet of ⅜ inch Manilla Trip rope. Price **$39.10**

4-X-11214. Outfit for 80 foot barn complete, including 170 feet ¾ inch Manilla hay rope and 70 feet ⅜ inch Manilla Trip rope. Price **$46.70**

STACK HAY CHEAPER NOW



4-X-11215. Complete outfit for 100 foot barn, including 180 feet of ¾ inch Manilla rope, and 75 feet of ⅜ inch Manilla Trip rope. Price **$54.30**

Remember, we furnish complete track, rafter-brackets, bolts and hanging hooks with each outfit.

If your barn is different or you don't think that any of our regular outfits are exactly suited to your needs, just write us what your special problems are. We will select you a complete outfit to suit your requirements. Our experts have spent years in this kind of work and understand every difficulty that can arise. Don't hesitate to call on us for plans and advice. We give them to you free. We want to help you get the right outfit, and assure you of absolute satisfaction.

WIRE CABLE BARN OUTFITS

4-X-11233. Outfit for 30 foot barn, consisting of one reversible cable carrier, 30 feet of ½ inch galvanized wire cable, two eye bolts, 2 cable clamps, 3 steel yoke knot passing pulleys, 4 floor hooks, 1 double harpoon short tined hay fork, 100 feet of ¾ inch Manilla hay rope, 40 feet of ⅜ inch Manilla Trip rope. Price **$23.25**

4-X-11236. Complete outfit for 40 foot barn. Price **$24.25**

Bear in mind that we furnish complete rope, cable, bolts, etc., for each outfit.

WOOD TRACK OUTFITS COMPLETE

4-X-11217. For 30 foot barn, consisting of one double swivel hay carrier, 12 rafter brackets, 12 hanging hooks, 4 floor hooks, one double harpoon short tine hay fork, 3 steel yoke knot passing pulleys, 100 foot of ¾ inch Manilla hay rope, 40 feet ⅜ inch Manilla Trip rope. Price..... **$21.90**

4-X-11219. For 35 foot barn, consisting of: 1 double swivel Hay Carrier, 14 rafter brackets, 14 hanging hooks, 4 floor hooks, 1 double harpoon short tine Hay Fork, 3 steel yoke knot passing pulleys, 110 feet ¾ inch manila hay rope, 45 feet ⅜ inch Manila trip rope. Price..... **$22.50**

4-X-11221. For 40 foot barn, consisting of: 1 double swivel Hay Carrier, 16 rafter brackets, 16 hanging hooks, 4 floor hooks, 1 double harpoon short tine Hay Fork, 3 steel yoke knot passing pulleys, 120 feet ¾ inch manila hay rope, 50 feet ⅜ inch Manila trip rope. Price..... **$23.80**

4-X-11223 For 50 foot barn, consisting of: 1 double swivel Hay Carrier, 20 rafter brackets, 20 hanging hooks, 4 floor hooks, 1 double harpoon short tine Hay Fork, 3 steel yoke knot passing pulleys, 140 feet ¾ inch manila hay rope, 55 feet ⅜ inch Manila trip rope. Price..... **$25.70**

4-X-11225. For 55 foot barn, consisting of: 1 double swivel Hay Carrier, 22 rafter brackets, 22 hanging hooks, 4 floor hooks, 3 steel yoke knot passing pulleys, 150 feet ¾ inch manila hay rope, 60 feet ⅜ inch Manila trip rope. Price **$26.80**

4-X-11227. Complete outfit for 60 ft. barn.... **$27.60**

4-X-11229. Complete outfit for 80 foot barn. **$31.40**

WIRE CABLE FIELD OUTFITS

4-X-11241. For 50-foot field stacking outfits consisting of one reversible cable carrier, one double harpoon short tined hay fork, 150 ft. of half-inch galvanized wire strand, 2 clamps for making loops around end stacks, 2 collars to prevent post working inward; 2 long bolts for the top of posts; 3 steel yoke knot passing pulleys; 140 feet of ¾-inch Manilla hay rope; 65 feet of ⅜-inch Manilla Trip rope. Price complete..... **$25.60**

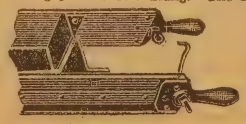
Harris Adjustable Fence Post Machine

Three Posts in One, Straight or Tapered, Long or Short Post, Plain or Corrugated Handled Like a Wheelbarrow

The Wheelbarrow Method Has Them All Beat

The "Harris" adjustable fence post machines will make posts in the same manner as the corrugated machine, but will do so with greater speed because of its convenience in handling. Strictly a one-man machine. The three posts in one is a very big feature. You can adjust this machine so as to make posts from 5 ft. to 7½ ft. in length, increasing the size of the top from 2½ in. to 4 in. and increasing the size of the bottom from 3½ in. to 6½ in. The sides are made of ¼ inch steel plate, reinforced with angle iron. The handles and truck are of gray iron castings. The top (truck end) and bottom (handle end) are so arranged for adjustment that you can get any desired width and style of top. On this machine you can make a smooth post as well as the corrugated. For this purpose, the corrugated strip, which is placed in the machine loose, is removed. A special staple form is provided to make staples of the ordinary No. 9 wire. These staples are imbedded in the cement, during process of making. The fence is fastened to these wire staples imbedded in the cement. You will only require one piece of the corrugated iron with each mould, as this strip can be used for every post made.

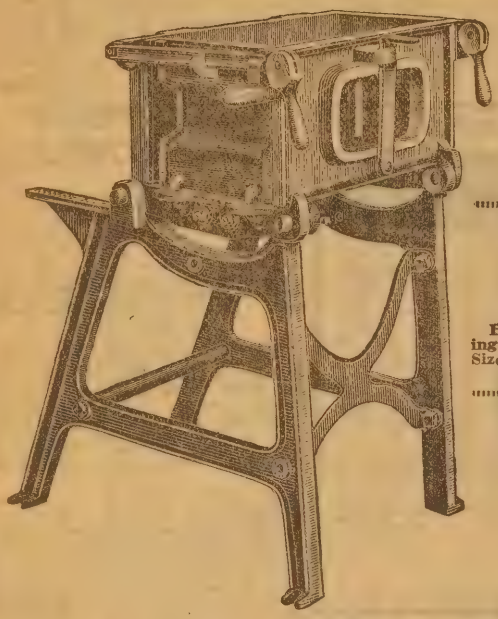
Shipped from factory in Central Wisconsin.



PRICES

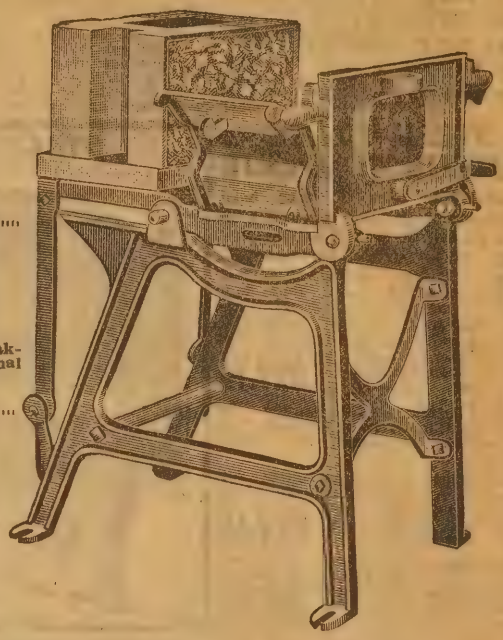
Cat. No.	Weight	Price
4-X-119	137 lbs.	$24.95

Konkrete King Face Down Block Machine



$41.00

Buys Complete Outfit for Making 8x8x16 inch and Fractional Size Building Blocks.



The "Konkrete King" Block Machine makes blocks on the face down principle. In this way the blocks can be made with a cement face of a mixture of three to one or two to one, and the balance of the block made of a mixture of five to one. The face of the block is the part that is exposed to the weather and concrete with a large proportion of cement affords better resistance to frost and dampness. However, the entire block can be made of one mixture. Also, when it is desired to color the face of the block, this can be done and the balance of the block made without coloring, saving the expense of coloring the entire block.

These splendid machines are made with a wrought iron adjustable rocker arm with an eccentric handle which when drawn down prevents the mold from getting out of square, insuring a perfectly true block. There are hundreds of other machines offered for sale, but none of them is equipped so that a square block is assured each time without spending valuable time in adjusting and truing up the machine.

There are no cogs, no springs or other devices to get out of order. Frame and flasks are made of a very high grade of tough gray cast iron, strongly bolted and braced, making the machine most durable. All lugs on the face plates are of chilled iron, giving them the needed strength so as not to break when subjected to rough handling. Flask consists of front and back wall, two core end doors, face plates, two improved rocker arms and pallet fitted in the most workmanlike manner. End doors are hinged to the face plates, which open easily when releasing the block.

Capacity The capacity of the "Konkrete King" Machine varies as to skill and experience of operator, also whether concrete is mixed by hand or machinery. One man can turn out on an average of 100 blocks a day and two men can easily turn out 250 blocks. Practice increases speed. The faster the material is delivered to the block makers, the larger the output.

Single or Double Core We furnish the **KONKRETE KING BLOCK MACHINE** with either single or double core flask as ordered; unless otherwise stated machine is equipped with a single core flash. **KONKRETE KING** is made in three sizes and so constructed that any one of the three flasks can be used on one standard, which is a great advantage should you wish to make blocks of different size. All that is necessary is to order flask attachment wanted. Are furnished either single or double core, in three different sizes for making blocks 8x8x16, 8x10x16 and 8x12x16 inches.

Pallets With each machine sample wooden pallet is furnished. You can easily make more yourself at a small expense, with simple carpenter's tools.

Regular Outfit The regular outfit consists of one full rock face plate, one-half and three-quarter rock face plate, two core end doors, one interchangeable return end door, rock design; two division plates, one gable block plate, two joist block attachments, stop-off plates, necessary cores, double end tamper, striker and sample wood pallet.

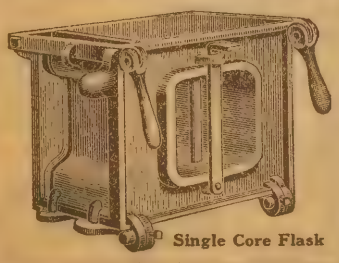
With this outfit you can make a whole or fractional size block; in fact, the machine is in every sense complete and the equipment can be added to from time to time and you can make any face or anything desired for an ordinary dwelling except mill work. We can furnish face plates in the following designs: Plain, rock, panel, cobblestone, tooled margin bush hammer, tooled face, tooled margin rock face, ashler face in six different designs, whirlwind scroll face, which are illustrated in the following pages. Unless otherwise specified the Machine is equipped with rock face design.

4-X-3. "Konkrete King" Building Block machine. Complete for making 8x8x16 inch blocks. Wt., 175 lbs. Price, F. O. B. Factory, Cen. Wis..... **$41.00**

4-X-4. "Konkrete King" Building Block Machine. Complete for making 8x10x16 inch blocks. Wt., 200 lbs. Price, F. O. B. Factory, Cen. Wis..... **$43.00**

4-X-5. "Konkrete King" Building Block Machine. Complete for making 8x12x16 inch blocks. Wt., 235 lbs. Price, F. O. B. Factory, Cen. Wis..... **$45.20**

Extra Flasks for Konkrete King Block Machines



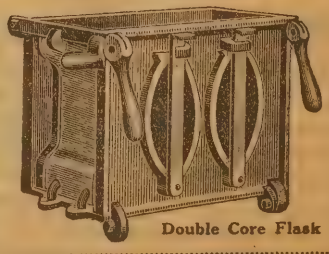
Single Core Flask

All flask attachments are made to fit one stand, either in a single or double core. The attachments are easily changed by releasing the two pivot or hinge bolts, allowing the rockers, which carry the core plate, to be spread so as to release the core plate. The back plate, to which the latches are attached, is used for all sizes of flasks. You require different widths of pallets for each flask. Flask attachments consist of core plate, two end cored plates, one return rock end, one gable block plate, necessary cores and stop-off plates. (Shipped from factory in Central Wisconsin.)

4-X-7. 8x8x16 Flask for "Konkrete King" Block Machines. Wt., 100 lbs. Price **$25.00**

4-X-8. 8x10x16 Flask for "Konkrete King" Block Machines. Wt., 135 lbs. Price ... **$26.00**

4-X-9. 8x12x16 Flask for "Konkrete King" Block Machines. Wt., 160 lbs. Price ... **$37.00**

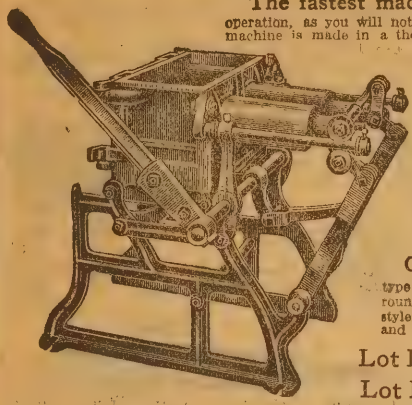


Double Core Flask

Millwork At Prices That Will Interest You!!

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

X-L-All Senior Cement Block Machine



The fastest machine on the market and extremely simple in construction and operation, as you will note from the illustrations having absolutely no complicated parts to get out of order. Each machine is made in a thorough workmanlike manner with best gray iron castings; all parts are machine finished and made interchangeable.

Complete List of Parts Furnished

1 Plain Face Plate for making whole blocks.
1 Plain Face Plate for making one-half and one-quarter blocks.
1 Rock Face Plate for making whole blocks.
1 Rock Face Plate for making one-half and one-quarter blocks.
1 Left Hand Rock Face End Door.
1 Left Hand Plain Face End Door.
1 Double End Tamper.
2 Dividing Plates for ½ and ¼ size blocks.
1 Graduating Bar.
1 Steel Plate for making Gable Blocks.
1 Steel Striker.
1 Sample Wood Pallet.
2 Core Plugs.
1 Right Hand Core End Door.
1 Left Hand Core End Door.
2 Pallet Plugs.
1 Sample Iron Pallet.
1 Steel Plate for inside corners.
1 Steel Carrier.
2 Joist Block Attachments.
Face Plates to make ¾ blocks.

Our Concrete Block Outfits are more complete than furnished with any other similar type of machine. With this outfit you can make a full block, one-half and one-quarter blocks, return corner blocks, also round corner window blocks and joist blocks in both Rock and Plain Face design. We give you your choice of any 2 styles of faces that you desire, but unless otherwise specified we always furnish THE X-L-ALL MACHINE with a plain and rock face.

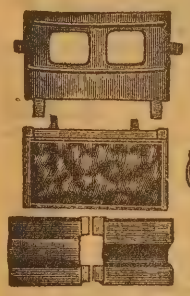
Lot No. 4-X-1218. 8x 8x16 machine complete as above, weight 450 lbs. $87.50
Lot No. 4-X-1220. 8x10x16 machine complete as above, weight 480 lbs. 97.50

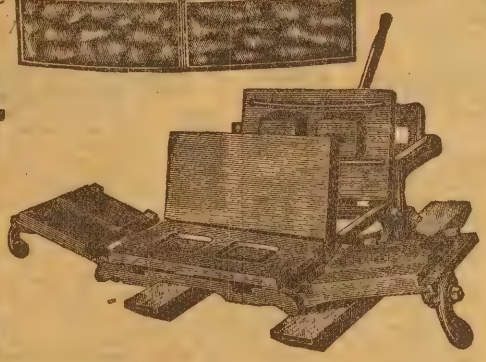
The X-L-All Machine is designed for the use of either iron or wood pallets. We recommend iron pallets; they cost but very little, if any, more than the wood pallets properly made. More blocks are lost by the use of poorly made wood pallets than the value represented by a full set of iron pallets. Iron pallets do not warp, and are practically indestructible. We furnish 1 each sample iron and wood pallet with each X-L-ALL BLOCK MACHINE.

If you want to make 8x8x16" and 8x10x16" blocks, it is not necessary to purchase two complete outfits. All that is necessary for you to order is one extra mold box outfit, which is described and illustrated on this page. You will thus have equipment for both size blocks at but a small additional investment.

Machine and parts are shipped direct from factory, near Chicago.

Always State Radius and Size of Face Plate





X-L-All Silo Block Making Attachment

You Will Save the Cost of Machine on One Silo

The illustration at the left is our Junior X-L-ALL Silo Machine attachment with mold box open. Note the curved face plates with beveled ends so as to make tongue and groove block so as to accommodate 6, 8, 10 and 12-foot radius, making a perfect close and lock joint. Also note half round in back plate, which leaves a concave in finished block to receive the re-inforcement wire. Note the lock joint and groove for wire.

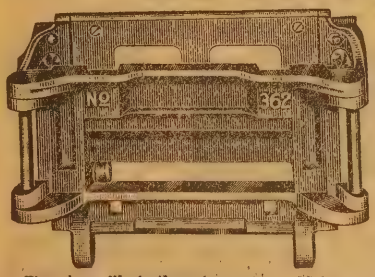
You can make silo 12 ft. in diameter, 16 ft. in diameter, 20 ft. in diameter, and 24 ft. in diameter, and any height you may desire.

Silo block attachment that we can furnish for X-L-ALL Senior machine. Not found in any other make of machine but the X-L-ALL.

Lot No. 4-X-1254. Size 8x 8x16. Weight 70 lbs.
Price $22.00
Lot No. 4-X-1256. Size 8x10x16. Weight 90 lbs.
Price 22.50

Always state radius and style of face plates wanted, whether rock or plain.

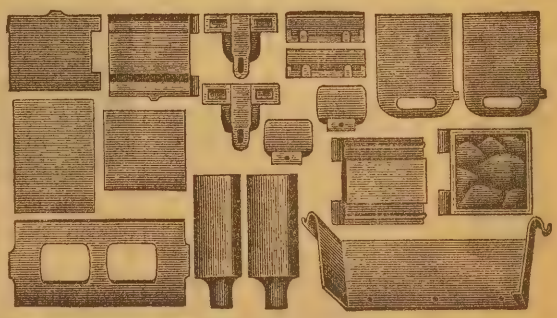
Mold Box and Mold Box Outfit



The above illustration shows the mold box we furnish with this mold box outfit.

$33.00

If you wish to make two size blocks, include with your order a mold box outfit. These outfits consist of 2 core hole plugs—2 pallet plugs—2 joist attachments—2 core end doors—1 plain end door—1 rock end door—1 cast iron pallet—2 dividing plates—1 carrier. All face plates are interchangeable, fit any mold box, and only one set of face plates are necessary.



The Outfit Includes:

1 Mold Box.
1 Iron Pallet.
2 Cores.
1 Rock End Door.
1 Plain End Door.
2 Core End Doors.
1 Carrier.
2 Dividing Plates.
2 Core Hole Plugs.
2 Pallet Plugs.
2 Joist Attachments.
1 Piece of Steel for Gable Blocks.
1 Piece of Steel for Inside Corner Blocks.

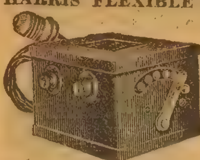
The illustration above shows the equipment which we furnish with extra mold boxes for X-L-ALL Machines.

Prices for mold box outfits complete with mold box.

Number	Size	Price
4-X-104	8x 8x16 in.	$33.00
4-X-105	8x10x16 in.	40.00

TELEPHONES AND ELECTRICAL SUPPLIES

HARRIS FLEXIBLE TOY TRANSFORMERS



No. 1 Toy with Switch

4-X-20054. These transformers reduce the house lighting current to low voltages, suitable for operating and regulating the speed of electric engines, small motors, electric trains; ring bells, buzzers; light small lamps, etc. In fact, the different uses to which they may be put are unlimited. They are a practical substitute for all types of primary batteries.

Each transformer is equipped with a regulating switch, by means of which a range of voltages from 1½ volt to the maximum limit of the transformer is available in small and uniform steps.

Transformers are mounted in handsome black enameled steel cases and equipped with an extension cord and attachment plug, so that they can be attached to any alternating current lamp socket. Have no moving parts and with ordinary care will last a lifetime.

Standard stock transformers are wound to operate on 100 to 130 volts, 60 to 133 cycles. Transformers of special voltage or cycle furnished to order without extra charge.

No. 1. 10 voltages, 1½ to 15 volts in 1½ volt steps, 50 watts, 4¼x3¾x3¼, 5 lbs. **$3.60**

No. 2. 16 voltages, 1½ to 24 volts in 1½ volt steps, 75 watts, 5x4x3¼, 7 lbs. $4.95

No. 3. 20 voltages, 1½ to 30 volts in 1½ volt steps, 150 watts, 5⅜x5x4, 10 lbs. $6.50

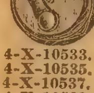
HARRIS BELL RINGING TRANSFORMER

4-X-20055. This transformer is designed to be connected to the house lighting circuit for the purpose of reducing the current to the low voltage, suitable for operating door bells, buzzers, annunciators, etc., thereby doing away entirely with the use of troublesome and expensive dry cells. The transformer is simply connected into the lighting and bell circuit. They are very easily installed and guaranteed to last a lifetime. Costs nothing to operate.

Stock transformers will operate on 100 to 130 volts, 60 to 133 cycle.

"Junior" Bell Ringer, 2⅝x2x6"; 2½ lbs...$1,50

WOOD BASE SWITCHES



For use on telephones, burglar alarms, closed circuit bell systems and battery circuits of all kinds. Hardwood base finished in oak, walnut and cherry.

4-X-10533. Price, 1-point switch..........12c
4-X-10535. Price, 2-point switch..........13c
4-X-10537. Price, 3-point switch..........14c
4-X-10539. Price, 4-point switch..........16c

ELECTRIC BELL OUTFITS

For Door and Call Bell Service

4-X-10587. Electric Bell Outfit. Consisting of dry battery, one bronze push button, one 3-inch iron box bell, 75 feet of annunciator wire and necessary staples..... **$1.65**

HARRIS MOISTURE-PROOF MAKE AND BREAK SPARK COILS

For Stationary and Marine Make and Break Engines

4-X-20051. Coils and assembled in a substantial black enameled steel case, 2¼" square by 6" high, occupying the same space in the battery box as an ordinary dry cell. They are very economical on battery power and generate at all times a hot, intense spark.

These coils are immersed in a special insulating compound, rendering them absolutely impervious to moisture. For this reason they can be installed in a damp or wet place without affecting their efficiency.

Any of our coils can be furnished with a single or double throw switch. A combined coil and switch is a very late improvement in Ignition Equipment. It simplifies the wiring circuit and eliminates the expense of one primary wire, battery switch and the mounting of same on the battery box.

No. 10. Make and break Coil without switch. 80c

No. 10. Make and Break Coil with single throw switch.......... 90c

No. 10. Make and Break Coil with double throw switch $1.10

COMPACT BRIDGING TELEPHONES

4-X-10301. 5-bar magnet compact bridging telephones with 1,000 Ohm Ringers complete with two dry batteries. Price, each, **$14.85**

4-X-10303. 5-bar magnet compact bridging telephones with 1,600 Ohm Ringers complete with two dry batteries. Price, each, **$15.00**

4-X-10305. 5-bar magnet compact bridging telephones with 2,000 Ohm Ringers complete with two dry batteries. Price, each, **$15.10**

4-X-10307. 5-bar magnet compact bridging telephones with 2,500 Ohm Ringers complete with two dry batteries. Price, each **$15.35**

4-X-10309. 4-bar magnet compact bridging telephones with 1,000 Ohm Ringers complete with two dry batteries. Price, each **$13.85**

4-X-10311. 4-bar magnet compact bridging telephones with 1,600 Ohm Ringers complete with two dry batteries. Price, each **$14.00**

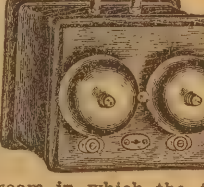
4-X-10313. 4-bar magnet compact bridging telephones with 2,000 Ohm Ringers complete with two dry batteries. Price, each **$14.25**

TWO-PARTY LINE TELEPHONES

4-X-10319. Designed for use on short lines not exceeding five miles. Equipped with special 3-bar generators, first class receivers and transmitters, and can be used in connection with telephone or fence wire. Oak case, highly polished and parts are heavily nickel plated.

Price complete with two telephones and four dry batteries.......... **$15.95**

EXTENSION BELLS



These are additional call bells to be connected with telephones, and can be placed in the shop or any room distantly located from the telephone. It often occurs that it is necessary to leave the office or room in which the telephone is located, and it is very convenient to have the Extension Bell at some point where a telephone call will be heard and answered. It is necessary that the Extension Bell be of the same ringing strength. No additional battery is required to operate this bell.

4-X-10401. 80 Ohm Extension Bell..**$2.50**
4-X-10403. 1000 Ohm Extension Bell **3.30**
4-X-10405. 1600 Ohm Extension Bell.**3.50**
4-X-10407. 2000 Ohm Extension Bell **4.00**
4-X-10409. 2500 Ohm Extension Bell **4.45**

We Carry a Complete Line of Repair Parts for the Telephone Outfits Above

RUBBER COVERED TELEPHONE WIRE

4-X-10471. Double Conductor Rubber Covered Wire Dry Braid for inside use. No. 19 gauge. Per 100 feet.......... **$1.75**

4-X-10473. Double Conductor, twisted and braided, saturated braid for outside use. No. 19 gauge. Per 100 feet.... **$1.70**

ANNUNCIATOR AND OFFICE WIRE

4-X-10475. Annunciator Wire. No. 18 Gauge. In one-half or one pound coils (150 feet to the pound). Per pound **75c**

4-X-10477. Office Wire. No. 18 Gauge In one pound coils. Per pound **75c**

4-X-10678. One-half-inch Bell Wire Staples in one-half-pound packages. Per package **22c**

IGNITION CABLE

4-X-20056. These cables are constructed so as to withstand the continuous presence of heat, grease and oils.

The cable is very flexible, built up of many fine copper strands, covered with two layers of high grade rubber, two layers of cambric braid and two layers of glazed cotton braid treated with special varnish.

⅜-inch High Tension Magneto Cable. Per foot **12c**

Low Tension, Primary Cable. Per foot...9c

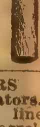
PONY OAK BRACKETS

4-X-10481.

Painted Pony Oak Brackets. For telephone and telegraph line construction. Can be fastened to side of pole or house. Do not require the use of cross arms. Weight, one-half lb.

Each 3½c

PONY OAK PINS



4-X-10483.

1¼-inch Painted Pony Oak Pins. For telephone and telegraph line construction. For use on cross arms.

Each 3c

PONY GLASS INSULATORS

4-X-10485. Pony Glass Insulators. For telephone and telegraph line construction. Packed 400 in barrel. Shipping weight per barrel, 300 lbs. per barrel, containing 400 insulators **$18.50**

Each, in less than barrel lots....5c

PORCELAIN INSULATORS

4-X-10487. Porcelain Insulator No. 4½. New code. 1-inch space between bottom and groove. Diameter, 1½ inches; height, 1⅞ inches; hole $\frac{5}{16}$ inch; groove $\frac{7}{16}$ inch

Price each.......... **3c**

Price per 100..........$2.75

4-X-10489. Porcelain Insulator No. 5½. New code. 1-inch space between bottom and groove. Diameter 1 inch; height 1$\frac{3}{16}$ inches; hole ¼ inch; groove $\frac{5}{16}$ inch. Per 100..$3.75

Price each 4c

In ordering always order in excess of your actual requirements to allow for any possible breakage in putting them up.

HARRIS JUMP SPARK COILS

For Stationary and Marine Engines.

4-X-20050. Designed to answer the most rigid requirements of marine and stationary gas engines, regardless of horse power.

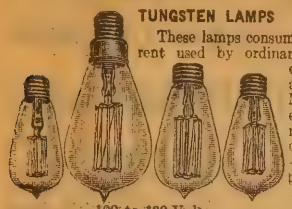
A hot, flaming arc is produced under compression with minimum current consumption, thereby increasing the life of the batteries.

Coils are equipped with a troubleproof vibrator and guaranteed to give satisfaction and last a lifetime. It is impossible to adjust the vibrator to consume an excessive amount of current, neither can it be adjusted to get out of working order. Arcing at contact points is practically eliminated. Large points are used, made of the very best grade of tungsten.

Assembled in a dovetailed, highly polished seasoned oak case.

Single Cylinder..$2.85 Double Cylinder.$ 5.25
Triple Cylinder.. 9.75 Quadruple Cylinder 13.00
Extra vibrator bridge with tungsten point 75c
Extra vibrator spring with tungsten point 75c

Priced Very Low For Your Economy



TUNGSTEN LAMPS

These lamps consume one-third the current used by ordinary carbon lamps of equal power. On account of Tungsten Metal being very easily broken by rough handling, we cannot guarantee safe delivery or replace Tungsten lamps shipped by mail.

100 to 130 Volts.

Clear Glass Tungsten Lamps

4-X-8005. 60-watt. Each **36c**

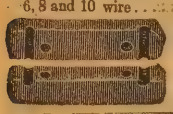
4-X-8003. 40-watt. Each **29c**

4-X-8006. 100-watt. Each **72c**

4-X-8004. 25-watt. Each **29c**

PORCELAIN TUBES

Length under head	1½	2	2½	3	4	5	6
4-X-10692. Per 100. 12 and 14 wire	$0.45	.47	.51	96.	1.60	1.90	2.30
4-X-10694. Per 100. 6, 8 and 10 wire	$0.95	1.06	1.70	2.00	2.40		



4-X-10698. Two Wire Porcelain Cleat. For Nos. 12 and 14 B. & S Gauge Rubber Covered Wire.

Price, per 100. ..... $2.70

Price, per dozen. ..... .35

EDISON FUSE PLUGS.

Used in connection with Edison Plug Cut-outs.

4-X-10627. 3 Amp. Edison Plug Fuses..8c
4-X-10629. 6 Amp. Edison Plug Fuses..8c
4-X-10631. 10 Amp. Edison Plug Fuses..8c
4-X-10633. 12 Amp. Edison Plug Fuses..8c
4-X-10635. 15 Amp. Edison Plug Fuses..8c
4-X-10637. 20 Amp. Edison Plug Fuses..8c
4-X-10639. 25 Amp. Edison Plug Fuses..8c
4-X-10641. 30 Amp. Edison Plug Fuses..8c

RUBBER COVERED WIRE

Rubber covered, solid conductor Copper Wire. Single braided with standard cotton yarn, which is thoroughly saturated with a pure wax compound, having a high melting power and is smoothly and evenly finished.

Prices of rubber covered wire are subject to market changes.

Catalog No.	B. & S. Gauge	Price per 100 ft.
4-X-10601	14	$1.75
4-X-10603	12	2.60
4-X-10605	10	3.70
4-X-10607	8	4.50

WEATHERPROOF WIRE

Triple Braid, solid conductor; the wires are covered with three closely woven braids of cotton thoroughly saturated with a black weatherproof compound. Prices subject to market changes.

Catalog No.	B. & S. Gauge	Price per 100 ft.
4-X-10610	14	$1.45
4-X-10612	12	2.00
4-X-10614	10	2.95
4-X-10616	8	4.27

LAMP CORD

Cotton Covered Lamp Cord. Composed of two twisted conductors and used for light extensions, drop lights, fans, etc.

	B. & S. Gauge	Price per 100 ft.
4-X-10613	18	$3.75

SILK COVERED LAMP CORD

	B. & S. Gauge	Price per 100 ft.
4-X-10617	18	$4.70

CIRCULAR LOOM CONDUIT

A flexible conduit of high insulating qualities, used in protection of wires from effects of weather, moisture, heat or abrasion.

Catalog No.	Size	For Wire B. & S. Gauge	Price per foot
4-X-10626.	¼ inch	8 to 14	8c

EDISON PORCELAIN CLEAT RECEPTACLE.

4-X-10677. Edison Chain Porcelain receptacle. Price, each..... 12c

High or Low Electric Light Regulators

20 Changes of Light—Dim or Bright

You simply pull the light or dark chain to subdue or brighten the light.

This perfected electric light regulator works equally well upon either direct or alternating current. It gives you exactly the strength of light you wish at all times—twenty changes of light—dim or bright—easily regulated by pushing either the dark or light chain. Made with a highly finished brass shell with socket construction to attach to a shade holder. Just the thing for hospitals, sick rooms, nurseries, bathrooms, hallways, bedrooms, or where a low light is necessary.

Any ordinary electric globe can be used provided it is not more than 40 watts capacity.

4-X-8904. Electric light regulator, complete without electric lamp **$1.25**

COLUMBIA DRY BATTERIES.

Designed especially for ignition work. Low internal resistance intended for the severest work under which an open circuit dry battery will qualify. Suitable for automobiles, motor boats, gasoline engines, small incandescent lights, small motors. Will test from 25 to 30 amperes. Weight, 2 lbs.

4-X-10521 Size 2½x6 ins. Each..... 50c

IRON BOX BUZZERS.

Used in place of bells for call purposes. Makes a loud buzzing sound.

4-X-10513. Iron box buzzer. Japanned finish 49c

IRON BOX BELLS.

Used for door and call bells. Box is made of stamped sheet steel, nickel plated cast gong, German silver contacts. Can be operated and rings clearly with one cell of battery at a distance of 150 feet. Better results can be obtained with two cells of battery, not only increasing the ringing strength but the life of the batteries.

4-X-10501. 3-inch iron box bell..... 49c

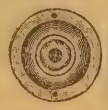
4-inch iron box bell. Used where a louder tone is required..... 59c

SKELETON BELLS.

Used for fire and burglar alarms, or for other purposes that require a strong, loud ringing bell, such as mills, shops and factories. The contact points are platinum, thus insuring a uniform penetrating sound.

4-X-10503. 4-inch Gong..... $3.00
4-X-10505. 5-inch Gong..... 4.00
4-X-10507. 6-inch Gong..... 4.50
4-X-10509. 8-inch Gong..... 7.00
4-X-10511. 10-inch Gong..... 7.95

PUSH BUTTONS.



4-X-10527. Wood push buttons. Oak, ash, cherry or walnut. German silver springs, porcelain button. 15c

4-X-10529. Solid cap stamped brass buttons..... 15c

4-X-10531. Stamped ornamental bronze oxidized copper push buttons, 2½ in. in diameter 17c

"HARRIS" STEEL BASE BATTERY SWITCHES.

Single Throw

4-X-20053. Recommended for all low voltage work; such as gasoline engines, motor boats, telephone, telegraph, bell lines, etc.

Double Throw

Mounted on a highly polished steel base. The jaws are of spring clip contact, assuring at all times a positive electrical connection.

No. 1 Single Throw, plain handle..... 16c
No. 2 Double Throw, plain handle..... 21c
Above switches with insulated handle, 3c extra.

ATTACHMENT PLUGS.

4-X-10677. Attachment Plugs. Will fit any standard Edison Base Socket and are used to run extension light lines from the nearest socket, making it possible to extend light into otherwise inaccessible parts. Also used for connecting electric fans, motors, etc., that can be operated from the lighting circuit. Edison Base, brass cap, fuseless..... 16c

EDISON BASE STANDARD SOCKETS.

Polished Brass Shell Fiber Lined. National code standard. ½ inch bushing for standard wiring.

4-X-10622. Edison Base Key Socket..40c
4-X-10624. Edison Base Keyless Socket 42c

HUBBELL PULL SOCKET.

4-X-10669. Can be used in place of an ordinary socket for outlet by means of pull chain, which is within easy reach and is a decided convenience over the key socket. This is a feature that will be appreciated by those whose chandeliers are too high to be easily reached. They are also especially desirable for use on portable and desk lamps. **Furnished only in the Edison base with chain 8 inches long.** Price, each.... .....80c

PORCELAIN BASE WALL SOCKETS

Edison Base Porcelain Wall Sockets. Brass cap and removable ring.

4-X-10673. Edison Base Key Wall Socket..... 45c

4-X-10674. Edison Base Keyless Wall Socket..... 44c

PORCELAIN CEILING ROSETTES.

Used as light outlets in interior wiring. Made in two pieces, based and capped.

4-X-10647. Porcelain Ceiling Rosettes. Cleat style..... 18c

4-X-10648. Porcelain Ceiling Rosettes. Concealed type. Price, each..... 18c

SPLIT PORCELAIN KNOBS.

National Code Standard. 1-inch from groove to base. Saves wire, time and labor of tying.

4-X-10650. For No. 10 B. & S. Gauge Wire and Smaller.

Per 100 ..... $3.75
Per dozen ..... .48

PORCELAIN WEATHER PROOF SOCKETS.

4-X-10653. Porcelain Weather Proof Sockets. Plain, without wood. Each socket fitted with 6 inches of No. 14 B. & S. stranded rubber covered wire. Price, each..... 16c

PENDANT SWITCH.

4-X-10685. For controlling electroliers, ceiling clusters and other fixtures that are out of reach and not connected with wall switch. This Switch is attached by means of lamp cord to the fixture, and the current is shut off and on by pushing button. Underwriters' rating 6 amperes, 125 volts; 3 amperes, 250 volts. Each 70c

RECEPTACLE PLUG CLUSTERS

Used in connection with Edison Base Sockets, making it possible to increase the number of lights or take off connections for extensions. For fans, motors, etc.

4-X-10687. Two Light Cluster..... $1.50
4-X-10688. Three Light Cluster..... 2.00
4-X-10689. Four Light Cluster..... 2.25

INDICATING SNAP SWITCHES

Used in connection with electric lighting work.

4-X-10691. 5-Amp. Single Pole, 220 Volt Indicating Snap Switch.39c
4-X-10693. 10-Amp. Double Pole, 220 Volt Indicating Snap Switch.86c
4-X-10695. 20-Amp. Double Pole, 220 Volt Indicating Snap Switch$1.00
4-X-10697. 30-Amp. Double Pole, 220 Volt Indicating Snap Switch$1.35

Dependable Mowers Priced Low

Lawn Implements

Sure Cutting Scythes Grass Catchers

=COMET= LAWN MOWER

Light running, accurately constructed machines, improved design, excellent material and workmanship. The wheels are 8⅜ inches in diameter. High grade brass bearings. Three spiral blades, finely tempered and ground. Continuous shearing, 5¼-inch cylinder. An excellent machine for small lawns. Bed knife is made of the best quality crucible steel, adjusted to cut different heights of grass. Handles and rollers are made of selected hardwood, neatly and artistically finished. Complete with directions and wrench.

Order No.	Width Blade	Weight Lbs.	Price
4-X-7601	12	40	$5.25
4-X-7603	14	42	5.50
4-X-7605	16	44	5.75
4-X-7607	18	46	6.00

LIGHT RUNNING

SATISFACTION GUARANTEED

$5.25 Up

See Our Pages of Lawn Fencing of All Kinds

=SUBURBAN= LAWN MOWER

A strictly high grade, durable high wheel, bronze bearing machine, having 10-inch drive wheels with extended rims and spoked centers. All bearing surfaces are in perfect alignment and make the Suburban Lawn Mower as free and easy in action as most of the ball bearing machines. Reel shaft is of solid steel. Adjusting screw has jam nut so that when placed remains in a fixed position. All parts are easily accessible and cannot get out of order. Four crucible steel blades, continuous shearing, finely tempered and accurately ground. The raised wheel rim protects the gear from dirt. The handles and rollers are made of selected hardwood. Furnished complete with directions and wrenches.

No.	Width Blade	Weight Lbs.	Price
4-X-7641	14	53	$7.30
4-X-7642	16	56	7.70
4-X-7643	18	59	8.10

BALL BEARING EUREKA LAWN MOWER

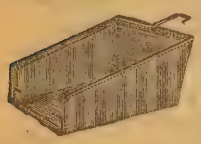
Our Eureka Ball Bearing Lawn Mower has 9-inch wheel with extended rim, four fine tempered and ground crucible steel blades, continuous shearing. Cutter bar is strong and rigid, mounted with oil tempered steel, ground to smooth, accurately beveled edge. Cones and cups are tempered steel and dust proof. Perfectly adjusted and held rigid by cone pointed screw, the same as in our Premier Lawn Mower. Noiseless ratchet positive in action. Cutter bar knife is adjustable by means of bolts, making a simple and rigid connection. Solid steel tree guard. Handle irons cannot become separated from the discs unless freed from the tongue. Handles and rollers are made of selected hardwood, nicely finished and varnished. Furnished complete with wrenches and directions, and fully guaranteed to please you.

Lot No. 4-X-7645. Width blade, 14 in.; wt., 46 lbs. Price.....$7.80
Lot No. 4-X-7646. Width blade, 16 in.; wt., 48 lbs. Price..... 8.25
Lot No. 4-X-7647. Width blade, 18 in.; wt., 50 lbs. Price..... 8.70
Lot No. 4-X-7648. Width blade, 20 in.; wt., 52 lbs. Price..... 9.60

BALL BEARING PREMIER LAWN MOWER

Desirable for use on any lawn. Drive wheels 10 inches in diameter with extended rim, elevating working parts above the dirt. Cones are adjustable to the very finest degree and held rigid by cone pointed screws. The ratchet is noiseless and positive in action. The ball bearings are attached in a manner that makes it possible to throw the reel eccentric with its bearings on the cones. Four crucible steel blades, finely tempered and ground. No bolts or cotter pins are used in the construction of this machine. Tree guard is made of solid steel. Easily adjusted to any height of cut. Roller and handle are made of selected hardwood nicely varnished. Complete with wrenches and directions.

Lot No. 4-X-7609. Width blade, 14 in.; wt., 53 lbs. Price.....$ 9.40
Lot No. 4-X-7611. Width blade, 16 in.; wt., 56 lbs. Price..... 9.90
Lot No. 4-X-7613. Width blade, 18 in.; wt., 59 lbs. Price..... 10.60
Lot No. 4-X-7615. Width blade, 20 in.; wt., 62 lbs. Price..... 11.55



4-X-7649. Adjustable Grass Catcher. Gathers grass the mower cuts, saving the labor of raking. Made of striped canvas, galvanized steel bottom, steel wire frame to fit 12 to 14-inch mower. Price $1.24

4-X-7651. Adjustable Grass Catcher. Has galvanized bottom to fit mowers 16 to 20 in. wide. Price. $1.40

CLIPPER CORN KNIFE.

4-X-7655. Extra Quality Steel carefully tempered and ground. Hardwood handle. Price..... 35c

BUSH HOOKS WITH HANDLES.

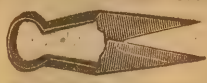
4-X-7657. Bush Hooks. Made from high grade tempered tool steel. Strong and serviceable. Complete with handle. Price $1.50

HAY KNIVES.

4-X-7659. Blizzard Pattern Hay Knife. Made of high grade tool steel, finely tempered. Price $1.30

4-X-7661. Genuine Lightning Pattern Hay Knife. Made of the finest tool steel, hardened and tempered like a scythe and ground sharp. Price..... $1.30

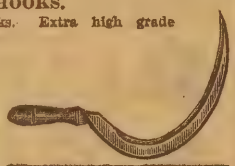
STEEL GRASS SHEARS.



4-X-7617. High grade forged steel blade. Malleable iron shanks. Fully warranted. Price 35c

GRASS HOOKS.

4-X-7621. Grass Hooks. Extra high grade steel, properly tempered, polished edges. Fully warranted. Price 30c



IMPROVED SCYTHE PATTERN.

4-X-7623. Grass Hook and Lawn Trimmer. Has crucible steel cutting edges, finely tempered, properly shaped and balanced. Guaranteed to give perfect satisfaction. Price 35c

PATENT LOOP SCYTHE SNATHS.

4-X-7639. Selected Seasoned Stock. Properly shaped, nicely finished and varnished. With patent loop and wrench. Price $1.05

4-X-7627. Two Ring Brush or Weed Snath. Selected seasoned stock, nicely finished and varnished. With two loop fasteners. Price $1.15

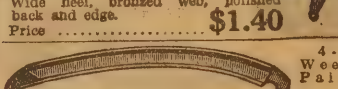
ADJUSTABLE GRASS CATCHER

4-X-7629. Made of striped canvas. Steel wire frame, canvas bottom. Dust proof. Adjustable to fit mowers 12 to 20 inches wide. Price $1.10

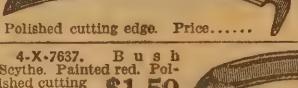
GRASS, WEED AND BUSH SCYTHES.

Made of the highest grade steel. Properly shaped, finely tempered and finished. Ground sharp, ready for use.

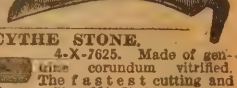
4-X-7631. Clipper Grass Scythe, Double ribbed. Bronzed web, polished back and edge. Price $1.45



4-X-7633. Western Dutchman Grass Scythe. Wide heel, bronzed web, polished back and edge. Price $1.40

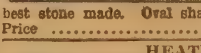


4-X-7635. Weed Scythe. Painted red. Polished cutting edge. Price..... $1.50



4-X-7637. Bush Scythe. Painted red. Polished cutting edge. Price... $1.50

CORUNDUM SCYTHE STONE.



4-X-7625. Made of genuine corundum vitrified. The fastest cutting and best stone made. Oval shape. Size 1¼x⅞x10. Price 15c

HEATH HAY KNIFE.

4-X-7663. Blade made in three sections from the best tool steel, carefully tempered. Has a draw cut. Price $1.10

If You Are Unable to Find What You Need, Write Us!

Durable Rakes, Hoes Hand Cultivators

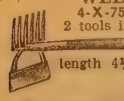
Garden Tools

Hay Forks Tree Pruners Shears, Etc.

WARREN PATTERN HOE.

4-X-7559. Polished Steel Blade, 6½ inches wide, 7½ inches deep. Selected hardwood handle, 4½ feet long. Made in superior manner.....54c

WEEDING HOE AND RAKE.



4-X-7561. An excellent Garden Hoe. Combines 2 tools in one. A strong and durable tool, which will give excellent service. Hardwood handle, length 4½ feet.....42c

CALIFORNIA PATTERN PRUNING SHEARS.

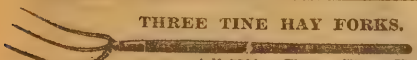
4-X-7545. Extra Quality Polished Steel Blade. Malleable handle, volute steel spring. Length, 9 inches; 2½ - inch blade 60c

4-X-7547. Extra Quality California Pruning Shear. Bright finish. 2½-inch finely tempered steel blade. Length, 9 inches. Fully warranted.....$1.10

PRUNING SHEARS.

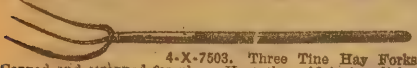
4-X-7539. Malleable Iron Handles. Spiral brass spring and link. Length, 9 inches; 2¼-inch steel blades....25c

THREE TINE HAY FORKS.



4-X-7501. Three Tine Hay Forks. Forged from crucible steel. 12-inch bright oval tines. Selected bent hardwood handles, plain capped ferrules.

Length, handles, feet	4	4½	5
Price, each	85c	86c	90c



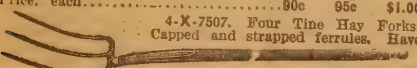
4-X-7503. Three Tine Hay Forks. Capped and strapped ferrules. Have three 12-inch polished crucible steel oval tines. Extra quality.

Length, handles, feet	4	5	5½
Price, each	$1.00	$1.05	$1.10

FOUR TINE HAY FORKS.

4-X-7505. Four Tine Hay Forks. Forged from crucible steel. 12-inch upright oval tines. Selected bent hardwood handles, plain strapped ferrules.

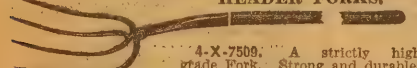
Length, handles, feet	4	4½	5
Price, each	90c	95c	$1.00



4-X-7507. Four Tine Hay Forks. Capped and strapped ferrules. Have four 12-inch polished crucible steel oval tines. Extra quality.

Length, handles, feet	4½	5	5½
Price, each	$1.10	$1.20	$1.35

HEADER FORKS.

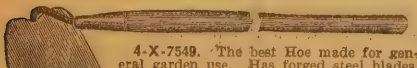


4-X-7509. A strictly high grade Fork. Strong and durable. Best fork made for handling alfalfa. Have four 16-inch polished oval crucible steel tines. 21 inches wide at the points, 5½-foot extra quality bent hardwood handle, capped and strapped ferrule.....$1.65

EXTRA QUALITY BARLEY FORK.

4-X-7511. Strictly high grade fork, which will give excellent service. Has four 18-inch polished oval crucible steel tines, adjustable ball, 4½-foot extra quality selected bent hardwood handle, capped and strapped ferrule.....$1.60

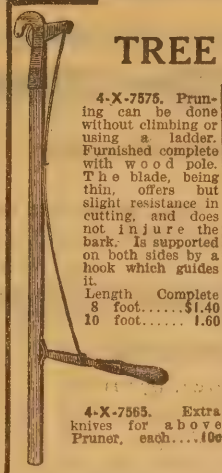
SOLID SHANK GARDEN HOES.



4-X-7549. The best Hoe made for general garden use. Has forged steel blades, steel socket 4½-foot selected hardwood handles.

Width of blades, in.	6	6½	7
Price, each	75c	85c	90c

TREE PRUNER



4-X-7575. Pruning can be done without climbing or using a ladder. Furnished complete with wood pole. The blade, being thin, offers but slight resistance in cutting, and does not injure the bark. Is supported on both sides by a hook which guides it.

Length Complete
8 foot.....$1.40
10 foot..... 1.60

4-X-7565. Extra knives for above Pruner, each....10c

For use of lineman for cutting wires free from the branches. Also is desirable for orchard use. Is supported by a rope tied in the end of a lever. When released the spring opens the blade and is ready for another cut. Blades can be easily taken out and resharpened. Socket is threaded and can be readily screwed on pole of any required length.

4-X-7567. Price is for Pruner only and does not include pole or rope.
Price $1.50

4-X-7569. Extra blades, each 10c

MALLEABLE IRON GARDEN RAKES.

4-X-7563. Made in a superior manner and an excellent value. Hardwood handle; length, 5½ feet.

Number of Teeth	12	14
Price, each	47c	52c

REVERSIBLE LAWN RAKES.

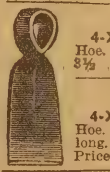
4-X-7513. A great favorite. Can be used for grass or leaves. Has 24 heavy steel wire teeth. 6-foot selected hardwood handle 56c

BRACED STEEL GARDEN RAKE

4-X-7537. The very best garden rake made, fitting head in one piece of solid steel. Steel bows well braced. Selected hardwood handles.

No. of Teeth	12	14
Length handle, ft.	5½	6
Price, each	$1.15	$1.30

GRUB HOE.



4-X-7515. Adze Eye Grub Hoe. 4-inch cut. Weight, about 8½ pounds.....75c

HAZEL HOE.

4-X-7517. Adze Eye Hazel Hoe. 6 inches wide; 10 inches long. Weight, about 3 pounds. Price $1.10

PLANTERS' EYE HOE.

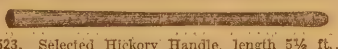
4-X-7519. Planters Eye Hoe. Solid forged steel. Weight, about 1½ pounds.

Size, inches	7	7½	8
Price	45c	50c	55c

GRUB HOE HANDLE.

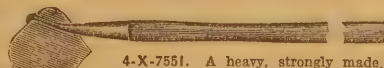
4-X-7521. Selected Hickory Handle, length 36 in.....40c

HAZEL OR PLANTERS' EYE HOE HANDLE.



4-X-7523. Selected Hickory Handle, length 5½ ft....45c

SOLID SOCKET FIELD HOE.



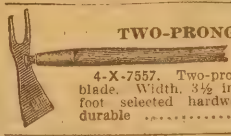
4-X-7551. A heavy, strongly made, durable Hoe. Suitable for any general field work. Blades are made of high grade forged steel. Heavy one pieced steel sockets. Extra quality hardwood handles. 7-inch hoe has 5-foot handle; other sizes, 4½ feet.

Width of blade, inches	6	6½	7
Price, each	65c	70c	75c

GARDEN HAND CULTIVATOR.

4-X-7555. Strong and substantial. Has 5-foot pointed forged tempered steel teeth, 4-foot selected hardwood handle..$1.00

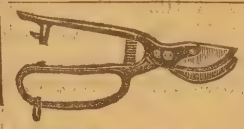
TWO-PRONG GARDEN HOE.



4-X-7557. Two-pronged forged tempered steel blade. Width, 3½ inches; height, 9 inches. 4-foot selected hardwood handle. Strong and durable 37c

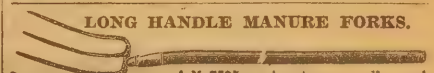
4-X-7541. Henry Pattern Pruning Shears. With a volute steel spring. Black japanned handles. Fine tempered steel blade. Length, 8½ inches. Fully warranted. Price 45c

LOOP HANDLE PRUNING SHEARS.



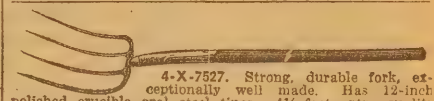
4-X-7543. Japanned Malleable Handles. Spiral brass spring. Fine tempered polished steel blade. Length, 9 inches. Strong and durable..55c

LONG HANDLE MANURE FORKS.



4-X-7525. A strong well made fork. 12-inch oval polished crucible steel tines. 4½-foot selected bent wood handle. Plain capped ferrule.

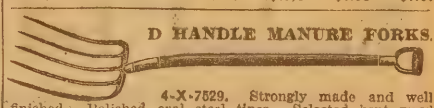
No. of tines	4	5	6
Price, each	92c	$1.15	$1.35



4-X-7527. Strong, durable fork, exceptionally well made. Has 12-inch polished crucible oval steel tines. 4½-foot extra quality bent hardwood handle. Capped and strapped ferrules.

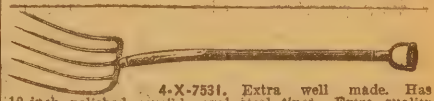
No. of tines	4	5	6
Price, each	$1.15	$1.35	$1.60

D HANDLE MANURE FORKS.



4-X-7529. Strongly made and well finished. Polished oval steel tines. Selected bent wood handle, malleable "D" heads, hardwood grips. Plain capped ferrules.

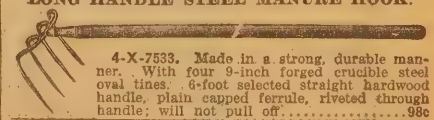
No. of tines	4	5	6
Price, each	$1.02	$1.20	$1.40



4-X-7531. Extra well made. Has 12-inch polished crucible oval steel tines. Extra quality bent hardwood handle, malleable "D" heads, hardwood grips. Capped and strapped ferrules.

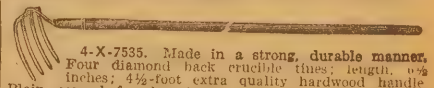
No. of tines	4	5	6
Price, each	$1.20	$1.45	$1.70

LONG HANDLE STEEL MANURE HOOK.



4-X-7533. Made in a strong, durable manner. With four 9-inch forged crucible steel oval tines. 6-foot selected straight hardwood handle, plain capped ferrule, riveted through handle; will not pull off.....98c

LONG HANDLE STEEL POTATO HOOK.



4-X-7535. Made in a strong, durable manner. Four diamond back crucible tines; length, 6½ inches; 4½-foot extra quality hardwood handle. Plain capped ferrule, riveted through handle; will not pull off.....97c

MORTAR MIXER.

4-X-7553. A strong, durable hoe. Made especially for mixing mortar and concrete. Has 6x10-inch forged steel blade, solid shank and socket. 6-foot selected hardwood handle.....97c

U. S. Government Barbed Wire!!

Here's your chance to buy quadruple galvanized coated barbed wire bought by us from the Government; made of 12 gauge open-hearth steel wire with 4-point barbs, ⅝ in. long, spaced 3 in. apart. Reels contain 750 ft. of wire. Unlike ordinary galvanized wire, this stock has been heavily galvanized AFTER it was made. Standard galvanized barbed wire is made from wire galvanized before being made into barbed wire, which removes much of the galvanized coating, leaving the cut points of all barbs bare.

This barbed wire, being galvanized after weaving, is coated on all surfaces with a galvanizing four times as heavy as any standard barbed wire, which means that much additional life to the wire. Reels weigh about 60 lbs.

2-X-110. Price in carload lots (625 reels or more), per reel **$3.15**

Shipped from Pittsburgh, Pa.

2-X-105.	Price in lots (100 reels or more), per reel	$3.20
2-X-106.	Price in lots (50 reels or more), per reel	3.25
2-X-107.	Price in lots (20 reels or more), per reel	3.30
2-X-108.	Price in lots less than 25 reels, per reel	3.35

Farmers' New Mixed Wire Nails

Sizes 3D to 40D

$3.95

Per 100 Lbs.

A splendid assortment of brand new wire nails in the sizes that you use every day. Indispensable about the home, workshop and farm. The same quantities bought at retail would cost you double this price. They always come in handy. Don't forget to include this bargain with your order.

2-X-4055. 100-lb. keg of mixed nails, 3d to 40d, sale price **$3.95**

Standard, Full Length Wire Nails—All Sizes

These wire nails are regular standard stock, high grade and full length. Just now we are facing the highest prices ever known in the nail market. The prices below are figured from the latest quotations received by us at the time this book was printed. The present uncertain conditions of the nail market necessitates that all our quotations be made subject to change without notice. Your order will be shipped at prices which prevail at the time it is received. We will see that you get every possible benefit of a decline in prices.

STANDARD NAIL SIZES AND LENGTHS IN INCHES.

Size	Length. In.	Diameter
60d	6	9/32 of an inch
40d	5	7/32 of an inch
30d	4½	13/64 of an inch
20d	4	3/16 of an inch
10d	3	5/32 of an inch
8d	2½	5/32 of an inch
6d	2	1/8 of an inch
4d	1½	1/8 of an inch
3d	1¼	3/32 of an inch
2d	1	3/32 of an inch

No. 2-X-4001. COMMON WIRE NAILS.

Size	Price Per Keg	Price Per Lb.
2d	$6.95	7½c
3d	6.70	
4d	6.55	
6d	6.45	
8d	6.35	
10d	6.30	
12d	6.30	
16d	6.30	
20-60d	6.25	

No. 2-X-4003. FINISHING NAILS.

Size	Per Keg	Per Lb.
2d	$7.40	8c
3d	7.10	
4d	6.90	
6d	6.70	
8d	6.60	
10d	6.50	
12d	6.50	
16d	6.50	
Larger	6.50	

No. 3-X-4005. CASING NAILS.

Size	Per Keg	Per Lb.
2d	$7.25	8c
3d	6.95	
4d	6.75	
6d	6.60	
8d	6.50	
10d	6.40	
12d	6.40	
16d	6.40	
Larger	6.40	

CEMENT COATED NAILS.

Size	Per Keg	Per Lb.
3d	$6.80	7½c
4d	6.70	
6d	6.55	
8d	6.45	
10d	6.35	
16-60d	6.25	

Mixed Wire Nails....$3.00 per Keg
Box Nails, same price as casing.
Steel and Iron Cut Nails, 35c per keg over Common Nails.
Base Price, $4.80.

No. 2-X-4008. FENCING NAILS.

Size	Per Keg	Per Lb.
6d	$6.45	7½c
8d	6.35	
10d	6.30	
12d	6.30	
16d	6.30	
20d	6.25	

No. 2-X-4009. FINE OR LATH.

Size	Per Keg.	Per Lb.
3d	$6.85	9c
4d	6.65	

No. 2-X-4013. GALVANIZED SHINGLE NAILS.

Size	Per Keg	Per Lb.
3d	$8.60	11c
4d	8.45	

STEEL WIRE BRADS

No. 2-X-4017. Put up in 1-pound packages

Length, inches	½	⅝	¾	⅞	1	1¼	1½
Gauge wire	19	18	18	17	16	15	15
Price, per pound	19c	18c	16c	15½c	15c	14½c	14c

SLIM WIRE NAILS

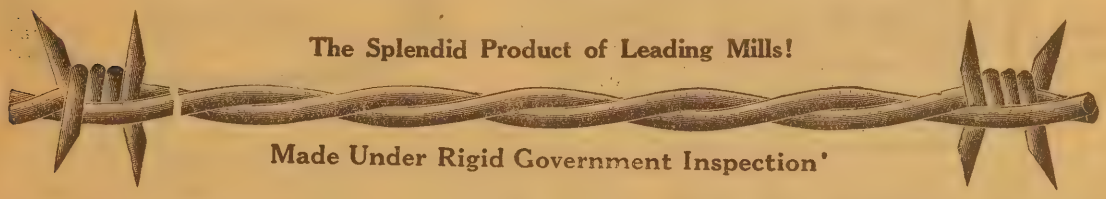
No. X-4619. Put up in 1-pound packages

Length, inches	¾	⅞	1	1¼	1½
Gauge wire	18	17	16	15	15
Price, per pound	18c	14c	14c	13c	13c

U. S. Government Barbed Wire!!

Greatest Offers Ever Made!!

For a limited time only we offer highest grade barbed wire purchased at a price less than the actual cost of manufacture. Following our usual custom, we are now offering the entire lot to our customers at the big money saving prices below.



Here is your chance to secure finest barbed wire made—the product of leading wire mills. Made under Government Inspection, so rigid that only the highest grade wire was accepted in this lot. Made of 12 gauge open hearth steel wire of highest quality, insuring extra strength. This extra strength gives long life to the wire; will outlast any ordinary barbed wire. Made in extra heavy weight, only with 4 point barbs, ⅝-in. long, spaced 3-in. apart.

This heavy high grade barbed wire is carefully coated with a special weather-resisting paint. This paint has undergone every possible test in the United States Government Laboratories and was accepted by Government Chemists as the best paint for protection of wire possible to produce. Using this extra heavy wire, coated with this perfect paint protection, you are assured of longest possible service under the most severe conditions. Put up in reels containing 750 ft. each. Weight, per reel, 58 lbs.

Low Quick Sale Prices

2-X-100X.	Price in carload lots (625 reels or more) per reel	$1.50
2-X-101X.	Price in lots of (100 reels or more) per reel	$1.55
2-X-102X.	Price in lots of (50 reels or more) per reel	$1.60
2-X-103X.	Price in lots of (25 reels or more) per reel	$1.65
2-X-104X.	Price in lots less than 25 reels, per reel	$1.70

Order Liberally Now!!

Crimped Wire for Reinforcing

$3.50 Per 100 Lbs.

2-X-986. Crimped wire for Reinforcing. Strengthen your concrete work by using crimped wire for reinforcing. We can furnish this material made up of No. 9 gauge annealed wire, crimped, and cut to any length you wish up to 20 ft. This wire has a slight surface rust, which is better for use in concrete than a smooth wire, as the concrete adheres more readily to the rusted surface. Specify length of wire required when ordering. Put up in 100-lb. bundles. **Per 100 lbs.** **$3.50**

Galvanized Wire

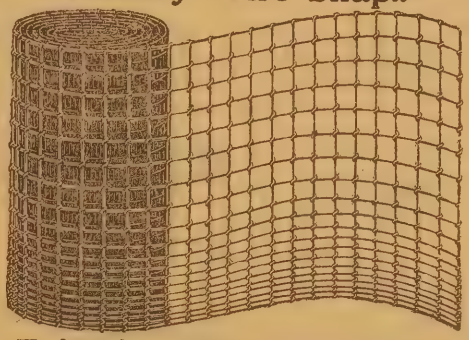
Heavily Galvanized

$3.50 Per 100 Lbs.

2-X-984. New galvanized wire, put up 100 lbs. in a bundle, consisting of shorts or mill ends, accumulated from regular galvanized fencing wire, varies in length from 50 ft. to 200 ft., and is sorted one gauge to the bundle.

No. 8 gauge, per 100 lbs.	$3.50
No. 9 gauge, per 100 lbs.	3.65
No. 10 gauge, per 100 lbs.	3.80
No. 11 gauge, per 100 lbs.	3.95
No. 12 gauge, per 100 lbs.	4.10
No. 13 gauge, per 100 lbs.	4.25
No. 14 gauge, per 100 lbs.	4.40

Poultry Wire Snap!!



We have just purchased a large quantity of slightly defective poultry fencing, defects consisting principally of an occasional loose wire, or some minor defect in weaving, which prevent us from offering it as perfect fencing. The defects will not in any way interfere with the usefulness or service of the fencing.

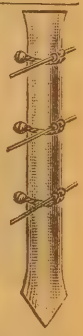
The very best fencing for general poultry purposes made in square mesh style; easily stretched tight and trim without bagging. Made of best steel wire, heavily galvanized, top and bottom wires No. 15 gauge; stay and strand wires No. 17 gauge. Upright wires or stays spaced 4 in. apart. Line wires spaced from bottom to top on 36 in. fencing as follows:

1 in., 1 in., 1 in., 1 in., 1⅛ in., 1¼ in., 1½ in., 1¾ in., 2 in., 2¼ in., 2¾ in., 3⅜ in., 4 in., 4 in., 4 in., 4 in.

Higher fences have sufficient additional strand wires spaced 4 in. apart to make their height. Put up in ten rod rolls only.

Number.	Height.	Number of bars.	Price per rod.
5-X-601	36 in.	14	$0.30
5-X-602	48 in.	20	.40
5-X-603	60 in.	23	.45
5-X-604	72 in.	26	.55

Pointed Drive Metallic Painted Posts



Harris Pointed Metallic Painted Tubular Posts fitted with adjustable clamps, made of 2 inch outside diameter charcoal iron tubing. Low price for this sale only.

No.	Overall In.	Clamps.	Weight Lbs.	Price Each.
2-X-317	60	2	11½	44c
2-X-318	72	3	12½	48c
2-X-319	77	4	13½	52c
2-X-320	84	5	14½	56c

Harris Galvanized Barbed Wire

"Harris" special barb wire, 80 rods to the reel, made of No. 14 gauge heavy galvanized open hearth steel iron, two point barbs, put up in 80 rod reels, sold by the spool.

2-X-11. 2 point galvanized barbed wire, barbs 5" apart. Per reel **$3.35**

2-X-13. 2 point galvanized barbed wire, barbs 3" apart. Per reel **$3.55**

Glidden Pattern Barbed Wire

Glidden Pattern barb wire, made of No. 12 gauge open hearth steel, heavily galvanized, put up in 80 rod reels, sold by the spool. Can be furnished in either hog or cattle wire, two or four point.

2-X-30. 2 point galv. barbed wire, barbs 5" apart. Per reel $5.05

2-X-31. 2 point galv. barbed wire, barbs 3" apart. Per reel $5.45

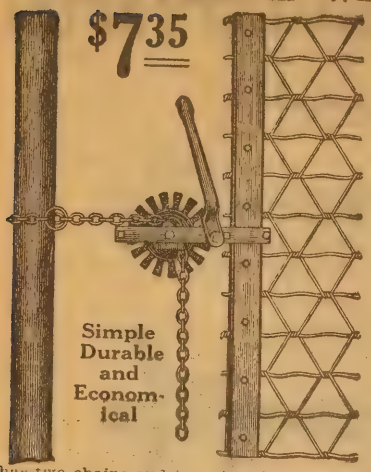
2-X-32. 4 point galv. barbed wire, barbs 5" apart. Per reel $5.40

2-X-33. 4 point galv. barbed wire, barbs 3" apart. Per reel $5.90

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Big Values in Corn Shellers! Watts Genuine Machines!

"Perfection" Wire Stretcher



This illustration shows in detail the single "Perfection" Fence Stretcher, as well as the manner of attaching to the posts and fence. The wonderful power, simplicity of action and ease of operation of this stretcher has made it very popular. They lock automatically at every half turn of the lever and never slip. The metal parts are of the highest quality steel and malleable iron and the clamps of selected hard wood. The chain is long enough for a pull of nine feet.

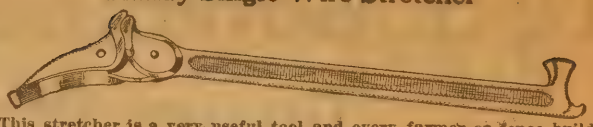
While the single stretcher is generally used and gives entire satisfaction, there are some that prefer the double stretcher, and in order to meet the preferences of all we offer both.

We are furnishing these stretchers at very low prices, and you will find the quotations below just about one-half the prices usually asked for similar stretchers.

The double stretcher is identically the same as the single one with the exception that it has two chains and two stretchers on the one set of wood clamps.

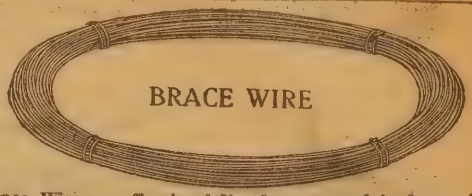
No. 2-X-210. "Perfection" stretcher, single weight, 75 lbs. $7.35
No. 2-X-211. "Perfection" stretcher, double weight, 125 lbs. $12.00

Handy Single Wire Stretcher



This stretcher is a very useful tool and every farmer or fence builder should have one of them. It will stretch smooth or barbed wire and possesses wonderful power. As the stretcher slips around on the post it holds the wire against the post, which makes it an easy matter to staple the same. On the end of the handle there is an effective staple puller and a very good hammer. We guarantee the stretcher fully.

No. 2-X-212. Price, each $1.35



The Brace Wire we offer is of No. 9 gauge and is drawn from Soft Open Hearth Steel. It twists nicely and gives the very best of satisfaction. In each coil there is about enough wire for three good braces. You can save both money and trouble by ordering a few coils of brace wire when placing your order for fencing.

No. 2-X-203. Price per coil of 10 pounds 70c

"HARRIS" Wire Splicer, Staple Puller and Hammer

95c COMPLETE

This is a wire splicer, staple puller, and hammer combined, not to mention all the other uses around the house and barn and one of the handiest tools you can have about the farm. It is not only the best, but the only combination tool of its kind. Made of high grade malleable iron, and is very strong and durable.

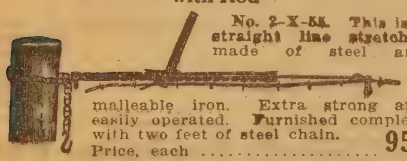
No. 2-X-209. Price, each 95c

Tackle Block Wire Stretcher

Fitted with an automatic lock or clasp. Disengaged by a slight movement of the hand rope. Can also be used as a safety hoist, with which any man can lift 500 pounds. Furnished complete with 16½ feet of ⅜-inch pure manilla rope.

No. 2-X-56.
Price, each $1.15

Ratchet Steel Wire Stretcher with Rod



No. 2-X-55. This is a straight line stretcher made of steel and malleable iron. Extra strong and easily operated. Furnished complete with two feet of steel chain.

Price, each 95c

The "Harris" Barbed Wire Stretcher

The most convenient and easily operated for stretching short runs of either woven or barb wire fencing. When stretching woven or poultry wire with ½ inch iron pipe 5 foot in length, fastening ends about pipe as shown in cut. For stretching long runs of heavy woven wire fencing the "Harris" Stretcher is highly recommended.

Lot No. 2-X-60. Price $2.75

Polished Fence Staples $5.25 Keg

Fence staples, made of No. 9 gauge, put up regularly 100 lbs. to the keg. There are 120 1-in. staples to a lb., 100 1¼-in. staples to a lb. Prices as follows in keg lots:

No. 2-X-35. 1-inch long, per 100 lbs. $5.25
1¼-in. long, per 100 lbs. 5.25

We will also furnish same in smaller quantities as follows:

Put up in 10 lb. pkg. Per pkg. $0.55
Put up in 20 lb. pkg. Per pkg. 1.10
Put up in 50 lb. pkg. Per pkg. 2.75

Poultry Netting Staples

Made of No. 14 gauge. There are 230 1-in. staples to a lb.

No. 2-X-36. 1-in. long, in keg lots per 100 lbs. $5.95

We will also furnish same in smaller quantities as follows:

Put up in 5 lb. pkg. Per pkg. $0.30
Put up in 10 lb. pkg. Per pkg. ..... .60

Bull Dog Wire Grip

A very handy tool for tightening loose wire. Can be attached to a bar and strong leverage secured. Fitted with swivel.

2-X-53. Price each 30c

Automatic Stock Waterer

4-X-3858. Can be readily connected to barrel or tank. Equipped with automatic valve, will not rust, which shuts off supply of water when bowl is filled. Fills up as fast as the stock is watered, insuring a fresh supply of water, preventing waste. Capacity about 4 quarts. Size of connections, ¾ inch. Weight about 12 pounds. Price $2.00

Galvanized Hitching Rings

4-X-3965, 2¼-inch Malleable Ring, wrought steel screw.

Price, each 12c

Steel Hay Rack

Corner hay rack, made of heavy steel, solid, projects from corner 3 ft., weight about 25 lbs.

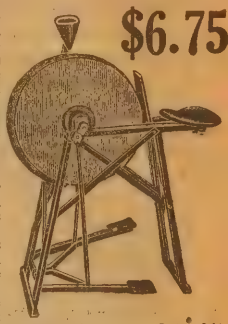
4-X-12053. Each .. $2.23

Feed Box

Corner feed box, with rolled flange; prevents waste of feed. Made of heavy cast iron. Size, 17 in. on side by 10 in. deep.

4-X-12055.
Price, each $3.15

4-X-4401. $6.75



The strongest and easiest running grindstone made. The frame is constructed from angle steel extra well braced and strongly reinforced, doing away with the vibration that is generally in all other ball bearing machines.

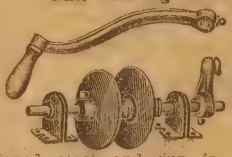
Fitted with four sets of the highest grade ball bearings ever put into a grindstone. Ball bearings on journals and cranks. Axles are made of steel, accurately centered. Stone is the best selected Berea grit 20 to 22 inches in diameter, 2 to 2½ inches thick, and weigh on an average of 60 pounds. Frame and stone shipped complete, carefully crated. Face of stone is protected by wood strip to prevent chipping in transit. Safe delivery guaranteed. Shipping weight about 85 pounds. Price, each $6.75

Harris Family Grindstone

The Harris Family grinder is just the thing for the home made in four sizes from the best material, fitted with convenient adjustable tool rests, nicely finished in black enamel. Equal to the best Emery Grinder on the market.

4-X-4401. 4-in. case; wheel size. 4x¾x1. Price $2.75
4-X-4406. 5-in. case; wheel size. 5x1x1. Price $3.65
4-X-4408. 7-in. case; wheel size, 6x1x1. Price $4.95
7-X-4410. 8-in. case; wheel size, 7x1x1. Price $6.25

Ball Bearing Grindstone Fixtures



4-X-4407. Made with ball bearing journals. Reduces friction and saves labor. Will support stones from 1½ to 3 inches thick up to 30 inches in diameter. Ball bearings are the best hardened steel and run in hardened steel cups.

Price per set $1.50

Ball Bearing Grindstone Fixtures

4-X-4409. Adjustable for stones of different thicknesses. The use of these fixtures will prevent the splitting of grindstone, which is often the case when wooden wedges or axles are used. Japanned finish.

Length, inches...	15	17	19	21
For Stone, lbs....	40	60	80	100
Price, each.....	$0.65	$0.75	$0.84	$0.95

Ask for full particulars of our Watts Corn Sheller Sale!

Government Poultry Netting $3.75 per bale

Galvanized 2-inch Diamond Mesh!

JUST purchased from the U. S. Government Army Depot at Columbus, Ohio, 150,000 bales of this high grade brand new poultry netting. Woven from 19 gauge Bessemer Steel Wire, heavily galvanized. Made under rigid inspection for the U. S. Government by the American Steel & Wire Co. and other leading wire mills. All 19 gauge 2 in. mesh netting in the two most desirable heights. Put up in bales of 150 linear feet. You can now buy this netting at a substantial saving with an assurance of getting it quickly from us during this sale. Don't delay. Leading wire mills have withdrawn all quotations on wire and wire products, which strongly points to a serious shortage in this line and undoubtedly a big price advance.

2-X-206. Height 36 in., mesh 2 in., per bale of 150 lineal feet, now..... **$3.75**

2-X-207. Height 72 in., mesh 2 in., per bale of 150 lineal feet **$7.45**

Galvanized Screen Wire

No. 2-X-49

Our Galvanized or Pearl wire is made by an entirely new process and is better rust-resistant than the ordinary bright wire, as it possesses remarkable rust-defying qualities. It is not affected by moisture or salt sea air and if given proper care will last years and years.

Our Galvanized Screen Wire is put up in rolls of 25, 50 and 100 running or lineal feet, 12 wires to the inch each way.

Width, Inches	25 ft. Rolls	50 ft. Rolls	100 ft. Rolls
24	$2.00	$3.70	$6.90
26	2.15	4.00	7.50
28	2.25	4.25	8.00
30	2.40	4.55	8.60
32	2.55	4.85	9.20
34	2.70	5.15	9.80
36	2.85	5.45	10.35
42	3.25	6.25	12.00
48	3.70	7.15	13.80

Painted Black Screen Wire

No. 2-X-48

The Painted Screen Wire we are offering is the best of its kind on the market and better than usually found on the cheap stock screens. It is put up in rolls of 50 and 100 running or lineal feet and measures each way 12 wires to the inch.

Width, Inches	50 ft. Rolls	100 ft. Rolls
24	$3.20	$5.85
26	3.45	6.35
28	3.70	6.85
30	3.90	7.30
32	4.15	7.80
34	4.40	8.30
36	4.65	8.75
42	5.40	10.25
48	6.10	11.70

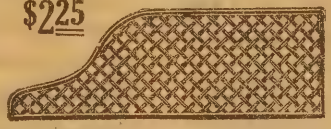
Approximate Weights of All Screen Wires

The weights given below are approximate per roll of 100 lineal, or running feet, on all screen wires.

Width, Inches	Weight Pounds	Width, Inches	Weight Pounds
24	19	32	26
26	21	36	29
28	23	42	35
30	24	48	40

Crimped Wire Stall Guards

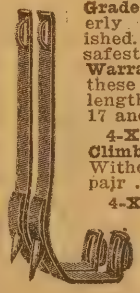
$2.25



Made of heavy Crimped Steel Wire 2½ inch diamond mesh, 1 inch channel iron frame, drilled for screws. Steel oval band top, painted green. Best wire stall guard made. Height, 25 inches.

No.	Length	Price, Ea.
2-X-12041	5 ft.	$2.25
2-X-12042	6 ft.	2.50
2-X-12043	6½ ft.	2.75
2-X-12044	7 ft.	3.00

Linemen's Climbers



Made from Heavy, High Grade Polished Steel, properly tempered, nicely finished. The strongest and the safest Climbers made. **Fully Warranted.** We furnish these Climbers in standard lengths: 15, 15½, 16, 16½, 17 and 17½ inches.

4-X-10482. Lineman's Climbers, Eastern Pattern. Without Straps. Per pair $2.10

4-X-10484. Extra Spurs for Eastern Pattern Climbers. Without Straps. Per pair 75c

4-X-10486. Climbers' Straps. With large leather pads which protect the knee. Can be used with other makes of Climbers, either Eastern or Western Pattern. Per Set of Four...$1.75

Linemen's Splicing Clamps

4-X-10476. Made of the Highest Grade Tool Steel, Properly Tempered. Length 10¾ inches. Full polished finish, spring tempered handles which will not bend out of shape. Mill cut teeth. Has five holes for Nos. 6, 8, 10, 12 and 14 wire....$1.25

Crimped Wire Window Guards

28c Per Square Foot

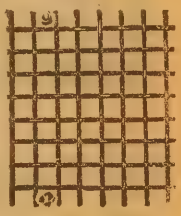
Guard against burglars and protect your windows from being broken. Where it is necessary to keep windows open for ventilation, they are almost a necessity. Our guards are made by one of the largest manufacturers in this line.

2-X-4030. Our diamond mesh wire window guards with round iron rod frame, we quote as follows:

Size Mesh Inches	Gauge of Wire	Diameter Frame Inches	Price Per Sq. Ft.
¾	14	¼	28c
1	14	¼	26c
1	12	5-16	28c
1¼	14	¼	22c
1¼	12	5-16	23c
1½	12	¼	24c
1½	10	5-16	25c
1½	8	⅜	29c
1¾	12	¼	28c
1¾	10	5-16	26c
2	12	¼	22c
2	10	5-16	23c
2	8	⅜	29c
2½	10	5-16	22c
2½	8	⅜	29c

Galvanized Wire Cloth

14c Per Lineal Foot



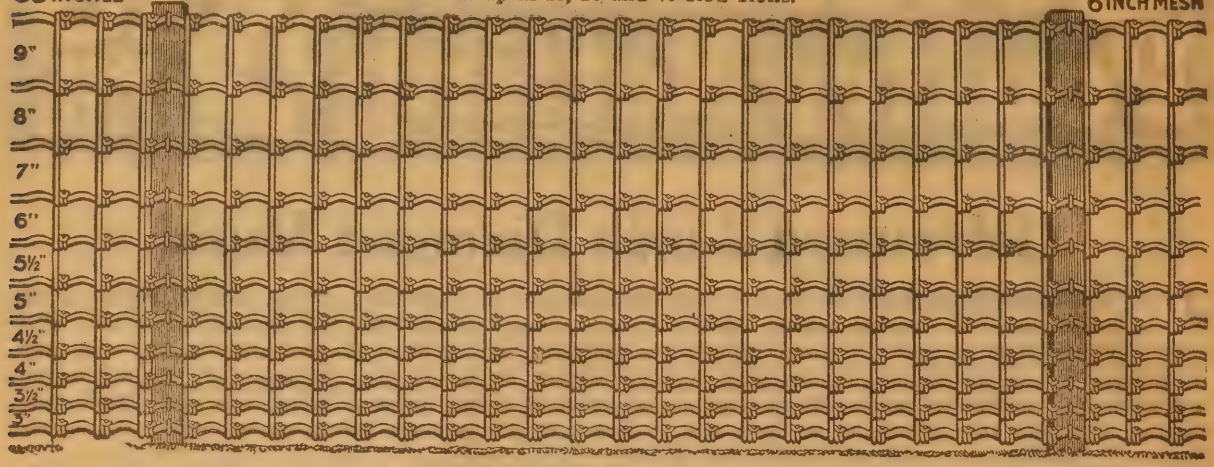
This cloth is generally known as hardware cloth, used for window guards, cages, fruit evaporators, screens and places where a heavy screen is needed. Furnished in the following sizes:

No.	W. Ins.	G.	Mesh to Mesh	Per 100 Lineal Ft.	Per Lineal Ft.
2-X-50	24	23	4 mesh to 1 in.	$12.75	14c
2-X-51	30	23	4 mesh to 1 in.	15.95	17½c
2-X-52	36	23	4 mesh to 1 in.	19.00	21c
2-X-53	24	19	2 mesh to 1 in.	10.75	12c
2-X-54	30	19	2 mesh to 1 in.	14.00	15½c
2-X-55	36	19	2 mesh to 1 in.	16.90	18½c

HARRIS SQUARE MESH FENCE

You will find this to be a very durable fencing. It is made of open hearth steel galvanized with the best quality of pure zinc spelter. This fencing has uniform tension curves in the line wires, which provide amply for contraction and expansion, due to changes in temperature, and keep the fence straight and tight during all seasons of the year. The fence will stretch evenly and perfectly over either level or hilly ground.

55 INCHES — Put up in 10, 20 and 40 Rod Rolls. — **6 INCH MESH**

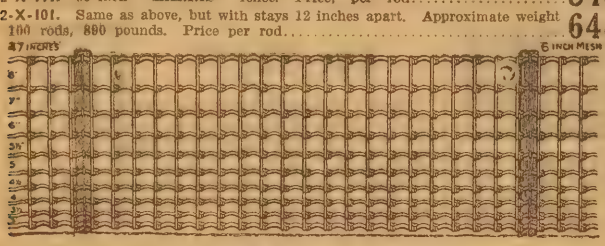


55-Inch Square Mesh Fence

11 wires high. Stays 6 inches apart. No. 9 gauge **High Carbon Hard Steel Coiled Spring** wires at the top and bottom. No. 12 gauge **High Carbon Hard Steel Coiled Spring** intermediate line wires. No. 13 gauge stay wires. All wires drawn from **Open Hearth Steel** and heavily galvanized. Spaces between line wires vary from 3 inches at the bottom to 9 inches at the top. Shipped from factory near Chicago.

2-X-111. 55-inch "HARRIS" fence. Price, per rod..... **84c**

2-X-101. Same as above, but with stays 12 inches apart. Approximate weight of 100 rods, 890 pounds. Price per rod..... **64c**



47-Inch Harris Square Mesh Fence

10 wires high. Stays 6 inches apart. No. 9 gauge **High Carbon Hard Steel Coiled Spring** wires at the top and bottom. No. 12 gauge intermediate line wires. No. 13 gauge stay wires. All wires drawn from **Open Hearth Steel** and heavily galvanized. Spaces between line wires vary from 3 inches at the bottom to 8 inches at the top. Approximate weight of 100 rods, 1,020 pounds. Shipped from factory near Chicago.

2-X-113. 47-inch "HARRIS" fence. Price per rod..... **75c**

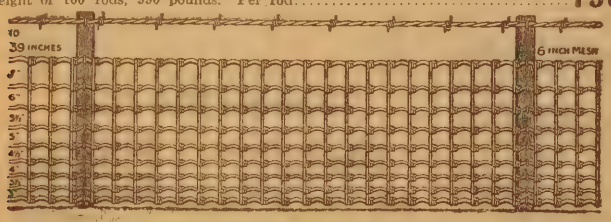
2-X-103. Same as above, but with stays 12 inches apart. Approximate weight of 100 rods, 810 pounds. Per rod..... **57c**

47-Inch Extra Heavy Harris Square Mesh Fence

10 wires high. Stays 6 inches apart. No. 9 gauge **High Carbon Hard Steel Coiled Spring** wires at top and bottom. No. 11 gauge intermediate line wires. No. 12 gauge stay wires. Spaces between line wires vary from 3 inches at the bottom to 8 inches at the top. Approximate weight of 100 rods, 1,280 pounds.

2-X-113½. 47-inch "HARRIS" fence. Per rod..... **95c**

2-X-103½. Same as above, but with stays 12 inches apart. Approximate weight of 100 rods, 990 pounds. Per rod..... **73c**



39-Inch Harris Square Mesh Fence

9 wires high. Stays 6 inches apart. No. 9 gauge **High Carbon Hard Steel Coiled Spring** wires at the top and bottom. No. 12 gauge intermediate line wires. No. 13 gauge stay wires. All wires drawn from **Open Hearth Steel** and heavily galvanized. Spaces between line wires vary from 3 inches at the bottom to 7 inches at the top. Approximate weight of 100 rods, 920 pounds. Shipped from factory near Chicago.

2-X-115. 39-inch "HARRIS" fence. Price per rod..... **66c**

2-X-105. Same as above, but with stays 12 inches apart. Approximate weight of 100 rods, 1,120 pounds per rod..... **51c**

39-Inch Extra Heavy Harris Square Mesh Fence

9 wires high. Stays 6 inches apart. No. 9 gauge **High Carbon Hard Steel Coiled Spring** wires at the top and bottom. No. 11 gauge intermediate line wires. No. 12 gauge stay wires. All wires drawn from **Open Hearth Steel** and heavily galvanized. Spaces between line wires vary from 3 inches at the bottom to 7 inches at the top. Approximate weight of 100 rods, 1,120 pounds. Shipped from factory near Chicago.

2-X-115½. 39-inch "HARRIS" square mesh fence. Per rod..... **85c**

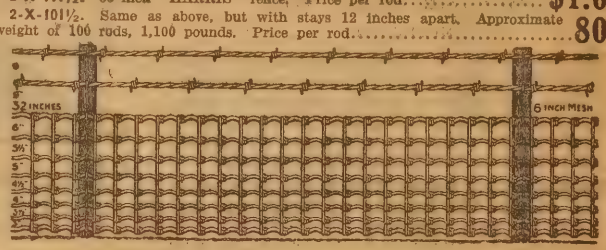
2-X-105½. Same as above, but with stays 12 inches apart. Approximate weight of 100 rods, 890 pounds. Per rod..... **65c**

55-Inch Extra Heavy Square Mesh Fence

11 wires high. Stays 6 inches apart. No. 9 gauge **High Carbon Hard Steel Coiled Spring** wires at the top and bottom. No. 11 gauge intermediate line wires. No. 12 gauge stay wires. All wires drawn from open hearth steel and heavily galvanized. Spaces between line wires vary from 3 inches at the bottom to 9 inches at the top. Approximate weight of 100 rods, 1,410 pounds.

2-X-111½. 55-inch "HARRIS" fence. Price per rod..... **$1.05**

2-X-101½. Same as above, but with stays 12 inches apart. Approximate weight of 100 rods, 1,100 pounds. Price per rod..... **80c**



32-Inch Harris Square Mesh Fence

8 wires high. Stays 6 inches apart. No. 9 gauge **High Carbon Hard Steel Coiled Spring** wires at the top and bottom. No. 12 gauge intermediate line wires. No. 13 gauge stay wires. All wires drawn from **Open Hearth Steel** and heavily galvanized. Spaces between line wires vary from 3 inches at the bottom to 6 inches at the top. Approximate weight of 100 rods, 830 pounds. Shipped from factory near Chicago.

2-X-117. 32-inch "HARRIS" fence. Price per rod..... **58c**

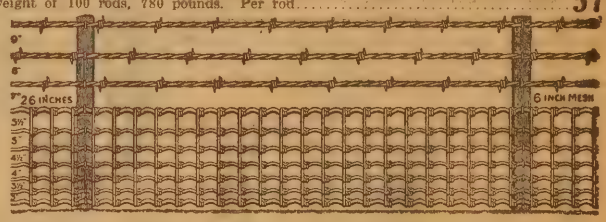
2-X-107. Same as above, but with stays 12 inches apart. Approximate weight of 100 rods, 650 pounds. Per rod..... **45c**

32-Inch Extra Heavy Harris Square Mesh Fence

8 wires high. Stays 6 inches apart. No. 9 gauge **High Carbon Hard Steel Coiled Spring** wires at the top and bottom. No. 11 gauge intermediate line wires. No. 12 gauge stay wires. All wires drawn from **Open Hearth Steel** and heavily galvanized. Spaces between line wires vary from 3 inches at the bottom to 6 inches at the top. Approximate weight of 100 rods, 980 pounds.

2-X-117½. 32-inch "HARRIS" square mesh fence. Per rod..... **74c**

2-X-107½. Same as above, but with stays 12 inches apart. Approximate weight of 100 rods, 780 pounds. Per rod..... **57c**



26-Inch Harris Square Mesh Fence

7 wires high. Stays 6 inches apart. No. 9 gauge **High Carbon Hard Steel Coiled Spring** wires at the top and bottom. No. 12 gauge intermediate line wires. No. 13 gauge stay wires. All wires drawn from **Open Hearth Steel** and heavily galvanized. Spaces between line wires vary from 3 inches at the bottom to 5½ inches at the top. Approximate weight of 100 rods, 720 pounds. Shipped from factory near Chicago.

2-X-119. 26-inch "HARRIS" fence. Price per rod..... **52c**

2-X-109. Same as above, but with stays 12 inches apart. Approximate weight of 100 rods, 580 pounds..... **40c**

26-Inch Extra Heavy Harris Square Mesh Fence

7 wires high. Stays 6 inches apart. No. 9 gauge **High Carbon Hard Steel Coiled Spring** wires at the top and bottom. No. 11 gauge intermediate line wires. No. 12 gauge stay wires. All wires drawn from **Open Hearth Steel** and heavily galvanized. Spaces between line wires vary from 3 inches at the bottom to 5½ inches at the top. Approximate weight of 100 rods, 850 pounds. Shipped from factory near Chicago.

2-X-119½. 26-inch "HARRIS" square mesh fence. Price per rod..... **64c**

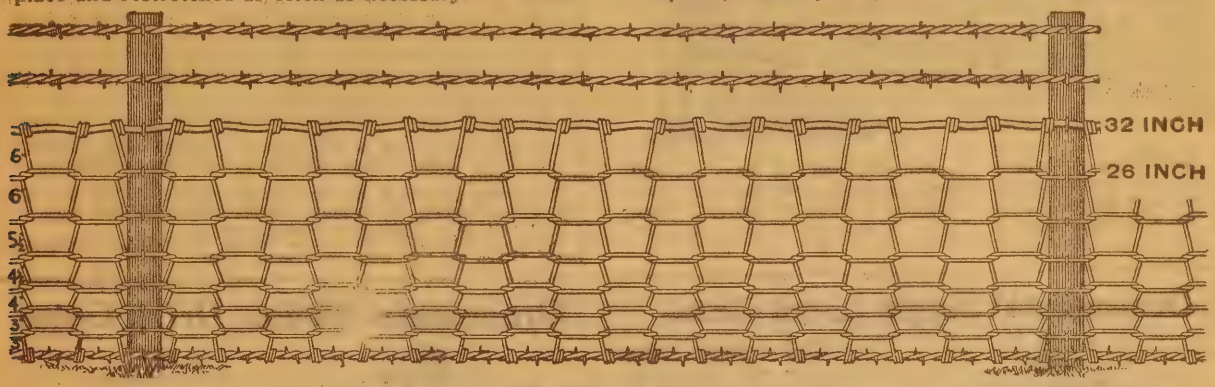
2-X-109½. Same as above, but with stays 12 inches apart. Approximate weight of 100 rods, 680 pounds..... **51c**

Paint? Ask for our Free New Color Card

Perfection and Victor Hog Fence

This fence is not as heavy as some of our other hog fences, but it possesses all the strength necessary for turning even the most vicious hogs. The barbed wire woven into the bottom is an exclusive feature that prevents hogs from lifting the fence with their noses and passing under.

This fencing is especially adapted for use as a temporary fence, for it can be easily moved from place to place and restretched as often as necessary. **Put up in 10, 20 and 40 yard rolls. Prices do not include barbed wire.**



26-INCH VICTOR HOG FENCE

7 wires high. Barbed wire woven into bottom. Stays 6 inches apart. No. 11 gauge High Carbon Hard Steel Coiled Spring Wire at the top. No. 14 gauge intermediate line and stay wires. All wires drawn from Open Hearth Steel and heavily galvanized. Spaces between line wires, commencing at the bottom, are as follows: 3, 3, 4, 4½, 5½ and 6 inches. Approximate weight of 100 rods, 425 pounds. Shipped from factory near Chicago.

2-X-122. 26-inch Victor Hog Fence. Price, per rod.....32c

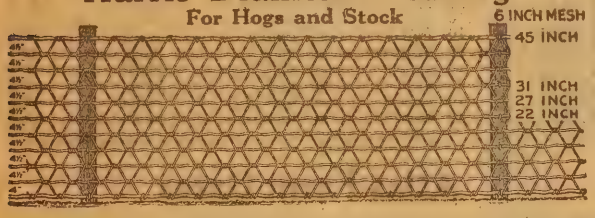
NOTICE—By using two or three strands of barbed wire above Victor Hog Fence an excellent general purpose farm fence can be made at a very low cost. Barbed wire not included at this price.

32-INCH VICTOR HOG FENCE

2-X-123. Same as above, but 32 inches high. 8 wires high. Approximate weight of 100 rods, 500 pounds. Price, per rod.....39c

Harris Diamond Fencing

For Hogs and Stock



This fence is thoroughly practical and gives the very best of satisfaction and service. The diamond shaped meshes hold the running wires in place and prevent slipping and spreading. In fact, every wire in the fence is a brace and support to all other wires.

The running wires are drawn from high carbon hard steel and are provided with tension curves which contract and expand with the changes of temperature and keep the fence straight and tight at all times.

While this fence is not quite as heavy as some of our other styles, yet it is strong enough for all ordinary requirements and makes an excellent general purpose farm fence. It is portable and can be moved from place to place as often as desired.

The top and bottom wires are No. 11 gauge, intermediate wires No. 14 gauge, and the mesh wires No. 16 gauge. Meshes 6 inches apart. This is an excellent combination hog and stock fence, and can be used by stretching two or three wires of barbed wire above the fence.

2-X-301—22" high, weight 4 pounds. PER ROD **36c**

2-X-302—27" high, weight 4½ pounds. PER ROD **40c**

2-X-303—31" high, weight 5 pounds. PER ROD **45c**

2-X-300—45" high, weight 6½ pounds. PER ROD **60c**

26-INCH PERFECTION HOG FENCE

(Extra Heavy)

7 wires high. Barbed wire woven into bottom. Stays 6 inches apart. No. 10 gauge High Carbon Hard Steel Coiled Spring Wire at the top. No. 13 gauge intermediate line and stay wires. All wires drawn from Open Hearth Steel and heavily galvanized. Spaces between line wires, commencing at the bottom, are as follows: 3, 3, 4, 4½, 5½ and 6 inches. Approximate weight of 100 rods, 525 pounds. Shipped from factory near Chicago.

2-X-112. 26-inch Perfection Hog Fence. Price, per rod.....40c

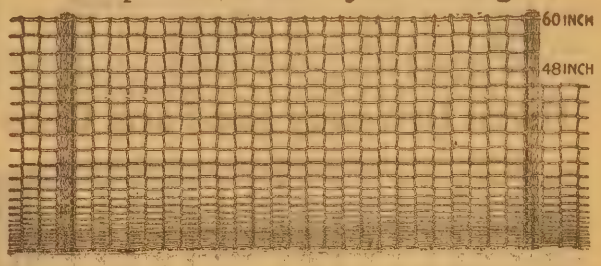
NOTICE—By using two or three strands of barbed wire above Perfection Hog Fence an excellent general purpose farm fence can be made and the cost is very low.

32-INCH PERFECTION HOG FENCE

(Extra Heavy)

2-X-121. Same as above, but 32 inches high. 8 wires high. Approximate weight of 100 rods, 600 pounds. Price, per rod.....46c

Superior Poultry Fencing



Poultry Fence. Suitable for enclosing poultry lots, gardens and young orchards. Neither the line nor stay wires can be slipped, and it is woven sufficiently close to turn all kinds of poultry and small animals. A practical and satisfactory combination poultry and stock fence. All wires are of high carbon steel, heavily galvanized.

Our thirty-day trial fully protects you. You may erect the fence and if it is not satisfactory within 30 days, take it down, return it to us and we will pay freight on same and refund your money in full.

Put up in 10, 15, 20 rod rolls.

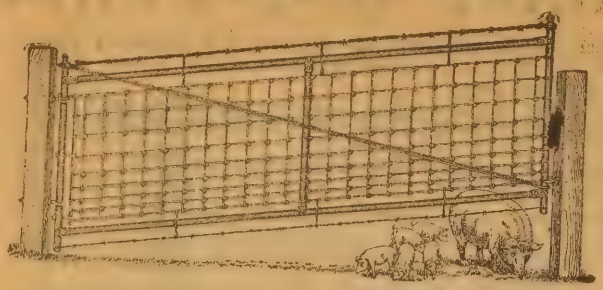
2-X-16. 48" high (20 wires) stays 4½" apart, No. 14 gauge top and bottom wires, 18 gauge intermediate and stay wires, weight approximately 400 pounds per 100 rods. PER ROD..... **45c**

2-X-14. 48" high (17 wires) stays 6" apart, 10 gauge top and bottom wires, 14 gauge intermediate and stay wires, weight approximately 825 pounds per 100 rods. PER ROD..... **65c**

2-X-17. 60" high (23 wires) stays 4½" apart, No. 14 gauge top and bottom wires, 18 gauge intermediate and stay wires, weight approximately 450 pounds per 100 rods. PER ROD..... **50c**

2-X-15. 60" high (19 wires) stays 6" apart, No. 10 gauge top and bottom wires, No. 14 gauge intermediate and stay wires, weight approximately 925 pounds per 100 rods. PER ROD..... **70c**

Harris Tilting Gates



Lot No. 2-X-217.	4½x10 ft.	Approx. shpg. wgt. 95 lbs.	$ 9.00
Lot No. 2-X-218.	4½x12 ft.	Approx. shpg. wgt. 105 lbs.	9.50
Lot No. 2-X-219.	4½x14 ft.	Approx. shpg. wgt. 115 lbs.	10.00
Lot No. 2-X-221.	4½x16 ft.	Approx. shpg. wgt. 122 lbs.	11.25

A very strong, cheap and durable gate. It is constructed so it can be raised over snow drift or to permit pigs and chickens to pass under, at the same time barring the way to horses and cattle. Framework made of 2 inch refinished and reclaimed seamless steel tubing, approximately ⅛ inches in thickness and weighing 2⅛ pounds to the foot. The center brace being composed of same tubing eliminates all possibility of breaking down in the center. The fabric is composed of regular square mesh galvanized fencing, stays spaced 6 inches apart and is hog proof; No. 9 top and bottom wires, with No. 11 line and stay wires. This fabric is put in with a stretcher rod composed of heavy round iron, operated with stretcher bolts so it can be kept tight or replaced with practically no labor. It has barb wire at the top and bottom, also operated with stretcher bolts.

We furnish the gates complete with extra heavy "T" bolt hinges, with 12 inch shanks, and a heavy automatic malleable iron latch.

The 16 ft. gate contains two center braces.

We can furnish this gate with all No. 9 wire, 6 inch stays, at an advance of 25c per gate over our regular price.

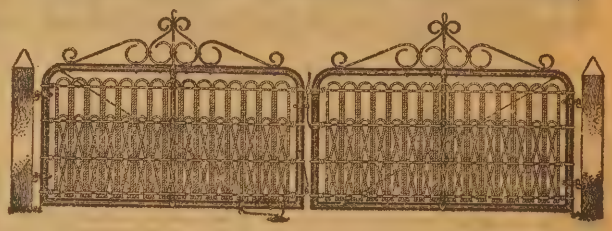
Ornamental Single Lawn Gates

The single lawn gates we offer are made of heavy Merchant's pipe measuring 1⅛ inches outside diameter and they are filled with Perfection Lawn Fence. These gates are strictly poultry-proof and very strong and durable. Each gate is fitted with good heavy hinges and an automatic latch. The frame is nicely painted with metallic paint to prevent rust. When these gates are ordered with Perfection Lawn Fence they should be specified three inches higher than the fence and the fence and gate will then match.

Set posts 3½ inches further apart than width of gate ordered.

	Width	Height	Ornamental	Plain
2-X-405A	3 feet	27 or 33 inches	$3.95	$3.70
2-X-406A	3 feet	39 or 45 inches	4.40	4.10
2-X-407A	3 feet	51 or 54 inches	4.75	4.50
2-X-408A	3½ feet	27 or 33 inches	4.10	3.80
2-X-409A	3½ feet	39 or 45 inches	4.55	4.20
2-X-410A	3½ feet	51 or 54 inches	4.95	4.60

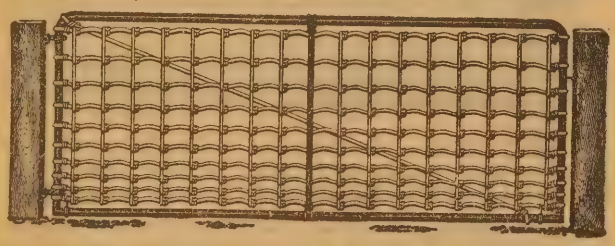
Ornamental Double Drive Gates



One side of the double gates is fitted with an automatic catch at the bottom so that it is possible to use just one-half of the gate as a single gate when so desired. Each of the two gates composing the double gate are braced diagonally with a heavy galvanized wire and the 12 foot wide double gate is braced in the center of each gate with a ⅞-inch, upright pipe, making them very rigid and strong.

	Width	Height	Ornamental	Plain
2-X-416A	10 feet	27 inches	$10.25	$10.00
2-X-417A	10 feet	33 inches	10.35	10.10
2-X-418A	10 feet	39 inches	11.25	11.00
2-X-419A	10 feet	45 inches	11.35	11.10
2-X-420A	10 feet	51 inches	12.25	12.00
2-X-421A	12 feet	27 inches	12.00	11.75
2-X-422A	12 feet	33 inches	12.25	12.00
2-X-423A	12 feet	39 inches	13.25	13.00
2-X-424A	12 feet	45 inches	13.50	13.25
2-X-425A	12 feet	51 inches	14.50	14.25

Harris Driveway and Farm Gates



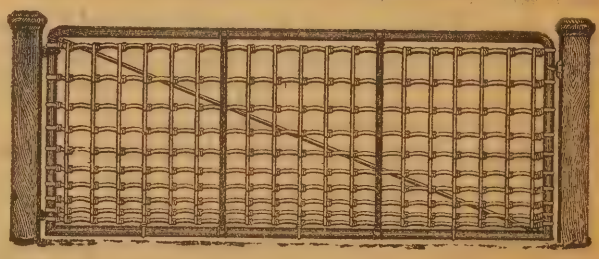
These gates add greatly to the beauty of the property they protect. They are extra strong and will stand all the hard usage of the farm without showing the least bit of wear.

This gate is made of 1⅝-inch outside diameter steel tubing, the upright brace in center is made of ⅞-inch tubing in 10 and 12 foot lengths, and two upright braces in 14 foot lengths. This prevents gate from spreading and makes them very rigid. In the construction of the frames of this gate, high carbon steel tubing is used.

We also place a No. 8 Galvanized Wire diagonally across the frame to strengthen it. Our "Harris" Farm Gate is furnished to you complete with hinges, latches and all necessary fittings to hang on wood posts ready for use. Hinges are adjustable and can be placed at any point on the gate, so that you can adjust them up or down, thereby allowing your gate to swing freely above ice or snow. Frame is covered with our Harris Square Mesh Fence as shown on preceding pages. All wires are heavily galvanized so as to prevent rust or corrosion.

2-X-200. "Harris" Standard Driveway and Farm Gate. 54 inches high, 10 feet wide. Price	$7.45
2-X-201. "Harris" Standard Driveway and Farm Gate. 54 inches high, 12 feet wide. Price	8.00
2-X-202. "Harris" Standard Driveway and Farm Gate. 54 inches high, 14 feet wide. Price	8.75
2-X-203. "Harris" Standard Driveway and Farm Gate. 54 inches high, 16 feet wide. Price	10.95

Atlas Farm Gates

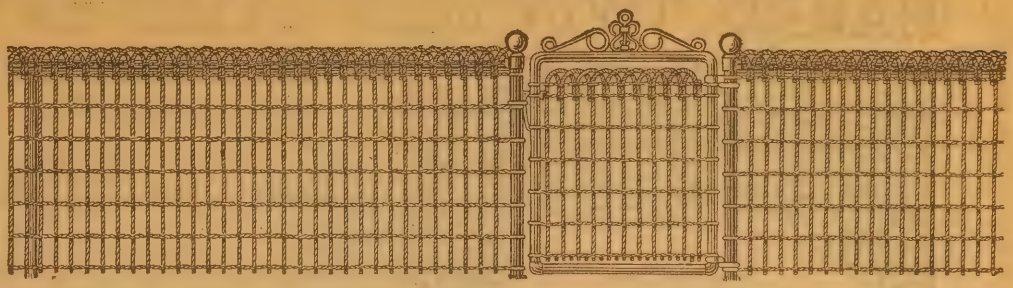


Our Atlas Farm Gate is one of the strongest, most durable and most serviceable gates on the market. They not only last a long time but also turn all kinds of stock. When durability, strength and satisfaction are taken into consideration, it is really the cheapest gate offered today. The frame is made of best quality wrought iron pipe, 1⅝ inches outside diameter and the two upright braces are 1⅛ inches. Pipe of the kind used is far more durable and strong than light weight steel tubing generally used. The frame is braced diagonally with a ⅝-inch steel rod, which effectually prevents sagging. The fabric filling is made of No. 9 galvanized wire and is close enough woven to turn anything from pigs, chickens, etc. The frame and braces are nicely painted black and each gate is fitted with a strong set of hinges and an automatic latch. Posts should be set 4 inches wider than gate ordered. Prices are F. O. B. factory in central Indiana.

No.	Width	Height	Weight	Price
2-X-213	10 feet	54 inches	105 pounds	$12.00
2-X-214	12 feet	54 inches	120 pounds	13.75
2-X-215	14 feet	54 inches	135 pounds	14.85
2-X-216	16 feet	54 inches	150 pounds	15.80

HARRIS WOVEN WIRE LAWN FENCING

Harris Woven Wire Fencing is made of the best grade of galvanized wire. The design is plain and substantial as shown in the cut above. This is a fence that will be suitable in any surroundings, harmonizing well on any lawn. Can be used with either steel or wood posts.



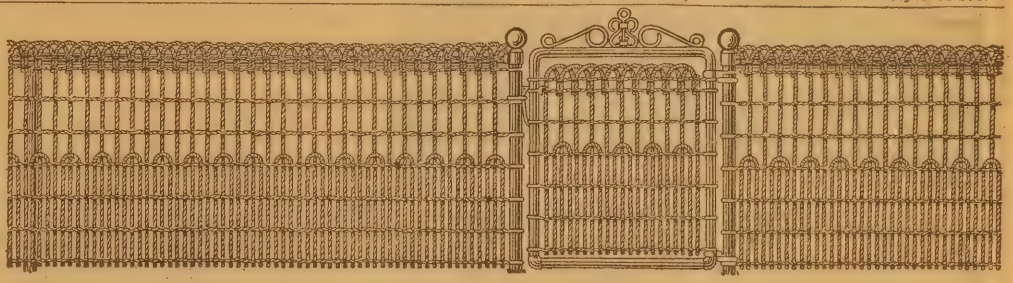
Uprights are made of No. 9 heavy galvanized wire, crimped the entire length. Cabled line wires are of heavy galvanized wire, with stays between the uprights, 2⅞ inches. Cables are spaced 6 inches apart, except the top wire, which is spaced 2⅜ inches. We can furnish same to you in the following sizes:

No. 2-X-428. 24 inches high. Per lin. ft. 11c
No. 2-X-429. 30 inches high. Per lin. ft. 12c
No. 2-X-430. 36 inches high. Per lin. ft. 13½c
No. 2-X-431. 42 inches high. Per lin. ft. 14c
No. 2-X-432. 48 inches high. Per lin. ft. 16c

The above fencing can be furnished in any continuous length up to 300 feet. We can furnish gates for the above, same as listed under style A-100.

Harris Ornamental Lawn Fencing

This style, A-200, differs from our 429 in that we weave in an additional picket at the bottom, adding to the beauty of the design and also giving additional strength to the fence. It will stand use and abuse and the wear of time to the limit of reasonable expectation. The space at the bottom closes to 1⅜ inches.

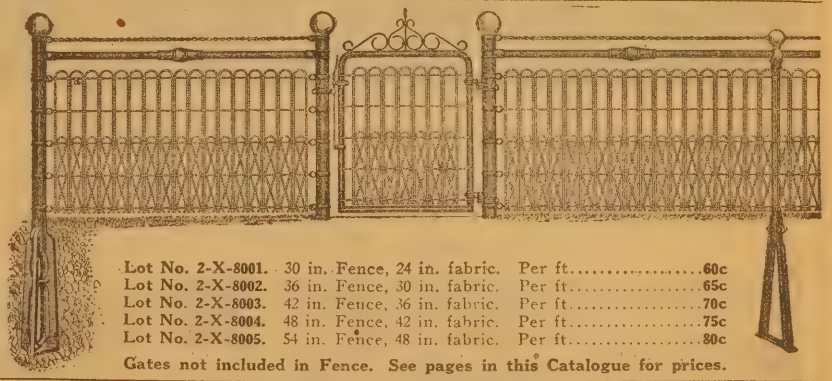


Uprights, No. 9 galvanized wire, crimped the entire length; cables, No. 12½, heavily galvanized, with space between the uprights at the bottom of 1⅜ ins.; at the top, 2⅞ ins. The cables are spaced 6 ins. apart, except the top space of 2⅜ ins.

Height of fabric, inches	24	30	36	42	48	54	60
2-X-404. Price, per lineal foot	14c	16c	17c	18c	21c	23c	26c

"Harris" Boulevard Complete Lawn Fence

We use our "Harris" Boulevard Lawn Fence for the filler in this beautiful Fence. The railing and posts are made of heavy Tubular Steel. The end, corner and gate posts measure 1¾ inches in diameter. The Posts are fitted with beautiful cast iron bases at the bottom and are mounted on the top with beautiful white enameled ball-shaped ornaments. All fittings are highest grade malleable iron. Handsome 4-ply Braided wire is stretched above the top railing, adding a neat and artistic finish to the Fence. Average weight of Fence, 8¾ pounds to the foot.

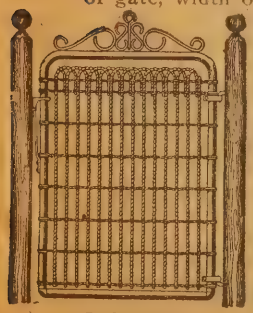


Lot No. 2-X-8001. 30 in. Fence, 24 in. fabric. Per ft. 60c
Lot No. 2-X-8002. 36 in. Fence, 30 in. fabric. Per ft. 65c
Lot No. 2-X-8003. 42 in. Fence, 36 in. fabric. Per ft. 70c
Lot No. 2-X-8004. 48 in. Fence, 42 in. fabric. Per ft. 75c
Lot No. 2-X-8005. 54 in. Fence, 48 in. fabric. Per ft. 80c

Gates not included in Fence. See pages in this Catalogue for prices.

ORNAMENTAL LAWN GATES

The frame is made of 1⅛-in., full weight, stiff, high-carbon steel tubing, nicely painted. The gate is filled with our "Harris" Ornamental Lawn Fence fabric. All gates furnished complete with heavy malleable iron hinges for wood and a strong automatic latch of improved pattern. These gates can be used for any purpose where a walk gate is required. In ordering gates, be particular to state kind of fittings desired—whether for wooden or steel posts. All gates are made to fit openings. By openings we mean total distance between posts. In ordering ornamental gates, specify dimensions in the following rotation: height of gate, width of opening. Note the following prices:



Style A-100

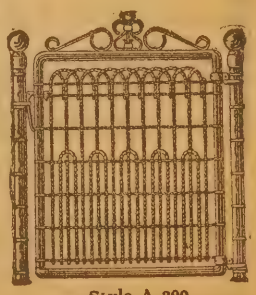
Single Gates—Up to and including 48 inches high

2-X-405. 3 ft. opening $4.00
2-X-406. 3½ ft. opening 4.40
2-X-407. 4 ft. opening 4.65
2-X-409. 5 ft. opening 5.50
2-X-411. 6 ft. opening $6.25
2-X-412. 7 ft. opening 7.00
2-X-413. 8 ft. opening 8.25
2-X-414. 10 ft. opening 9.10
2-X-415. 12 ft. opening 10.00

Double Gates—Up to and including 48 inches high

2-X-416. 8 ft. opening ..... $ 9.25
2-X-417. 10 ft. opening 10.75
2-X-418. 12 ft. opening 11.25
2-X-419. 14 ft. opening $14.00
2-X-420. 16 ft. opening 16.50

Above ornamental lawn fence weighs from 2 to 5 lbs. per lineal foot, depending upon height and style of fence. Gates size 3x3 ft. weigh about 20 lbs. each. Gates with 10 to 12 foot openings weigh from 60 to 100 lbs., depending upon height and style.



Style A-200

HARRIS TWIN POST CEMETERY ARCH

Nothing can be more appropriate for a roadway into a Cemetery than one of our beautiful Arches with the name of the Cemetery in beautiful White Enameled letters printed across the top.

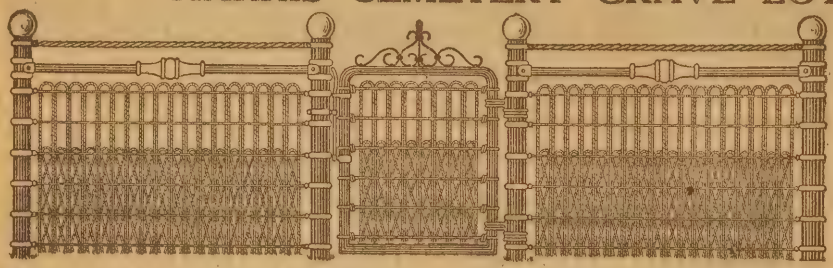
The "Harris" Twin-post Cemetery Arch is made up with two upright posts on each side, measuring 1¾ inches in diameter. These posts are placed 12 inches apart. The spaces between, divided into vertical sections by short pieces of pipe which act as braces to the posts. These vertical sections are filled with neat and attractive scroll work.

The "Top" of the "Harris" Arch is mounted with a beautiful scroll pattern and is filled with one of our most beautiful designs of Ornamental Wire Fabric. We also place in the corners beneath the top an elegant pattern of scroll work. Each post is fitted with a heavy cast iron base and neat white enameled Ornament on the top. We put the name of your Cemetery on the top of the Arch in beautiful White Enameled Letters, without additional cost.

2-X-9501.
Harris Twin Post Cemetery Arch..... **$67.00**

For $20.00 additional, we will send an Arch with upright posts 2½ in. in diameter. The price quoted is for driveway 8, 10 and 12 ft., but does not include the gates. For prices on Gates, see pages in this Catalogue.

HARRIS CEMETERY GRAVE LOT ENCLOSURE

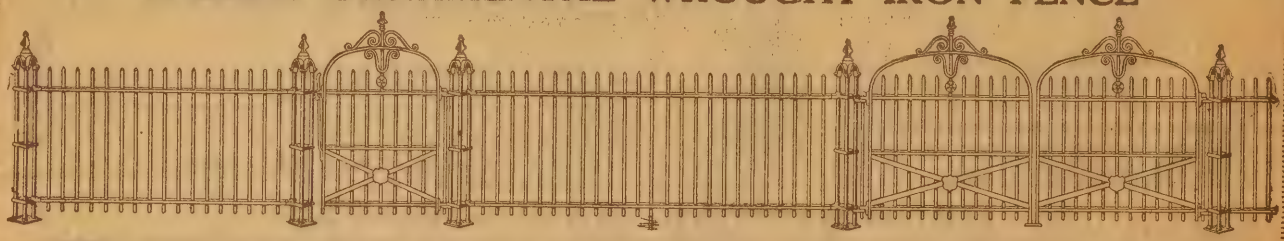


Beautify and protect your Burial Lot with Ideal Grave Lot Enclosure; regardless of whether or not the Cemetery is fenced. Adds wonderfully to the appearance of your burial lot and general surroundings.

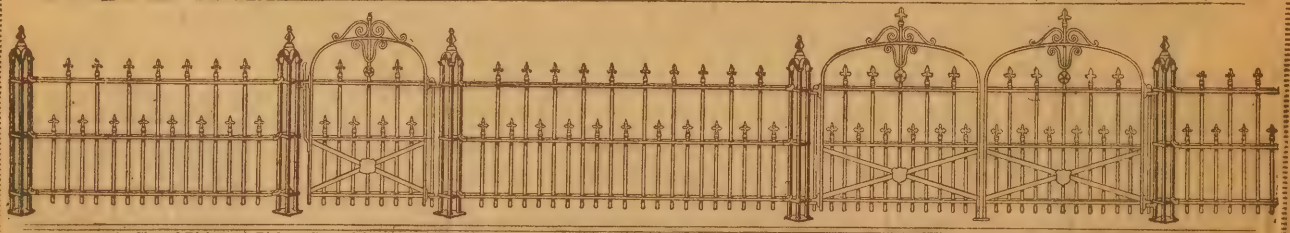
We use the same posts, railing, fabric and fittings as described in our "Harris Premier" Ornamental Fence. This Fence is made in one height only, 36-inch, filled with a 30-inch fabric, making a very practical enclosure. The highest grade of galvanizing is used in the manufacture of this Fence—will outwear many of the higher priced fences. Prices below include one walk gate, 3 ft. wide.

Lot No. 2-X-9121.	8x10 ft. enclosure, 36 in. high	$30.00
Lot No. 2-X-9141.	8x15 ft. enclosure, 36 in. high	38.00
Lot No. 2-X-9161.	8x20 ft. enclosure, 36 in. high	45.00
Lot No. 2-X-9171.	10x12 ft. enclosure; 36 in. high	$36.00
Lot No. 2-X-9181.	10x15 ft. enclosure, 36 in. high	41.00
Lot No. 2-X-9191.	20x20 ft. enclosure, 36 in. high	70.00

HARRIS ORNAMENTAL WROUGHT IRON FENCE



	Picket	Spaced Apart	Size of Chan. Rail	Height	Price	Height	Price	Height	Price	Height	Price	Height	Price
2-X-1062	⅝ In.	4 In.	1¼x½ In.	37 In.	$0.60	42 In.	$0.65	48 In.	$0.70				
2-X-1066	½ In.	4 In.	1¼x½ In.	37 In.	.76	42 In.	.82	48 In.	.88				
2-X-1068	⅝ In.	5 In.	1½x½ In.	37 In.	.88	42 In.	.95	48 In.	1.05	54 In.	$1.27	60 In.	$1.40
2-X-1070	¾ In.	5 In.	1½x½ In.	37 In.	1.26	42 In.	1.37	48 In.	1.48	54 In.	1.62	60 In.	1.75



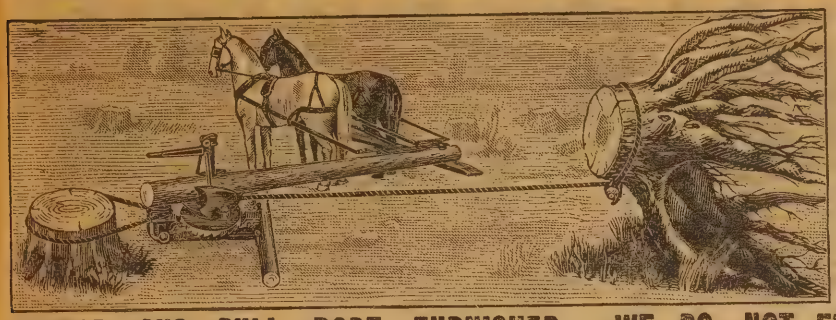
	Size of Picket	Pickets Spaced	Size of Channel Rail	Height	Price	Height	Price	Height	Price
2-X-1001	⅝ Inch	4 Inch	1¼ Inch x ½ Inch	37 Inch	$0.75	42 Inch	$0.78	48 Inch	$0.80
2-X-1005	½ Inch	4 Inch	1¼ Inch x ½ Inch	37 Inch	.86	42 Inch	.89	48 Inch	.96

THE ABOVE PRICES ARE FOR A LINEAL FOOT, INCLUDING LINE POSTS. CORNER, END AND GATE POSTS ARE EXTRA.

Extra for Corner, End and Gate Posts, 37 ins., $5.60; 42 ins., $5.90; 48 ins., $6.15; 54 ins., $6.60; 60 ins., $6.90.

When figuring cost of Fencing, measure full opening, including Gates, Corner, End and Gate Posts, then add $5.80 each for Single Gates, 3 ft. 2 in. wide; $12.75 each for Double Gates, 8 ft. 2 in. wide, and extras for Posts as shown above.

The PREMIER STUMP PULLER



$29.50 AND UP — A LABOR SAVER and MONEY MAKER

Powerful, Efficient, Low Priced, Guaranteed

MADE IN FIVE SIZES

ANCHOR AND PULL ROPE FURNISHED --- WE DO NOT FURNISH SWEEP AND BED PIECES

The Tapered Grooved Drum. This is a perfect Drum, tapered so that the slack of the rope is quickly taken up on the large diameter, the strain falling on the smaller diameter, performing the double purpose of increasing the power and speed of the machine at the same time. No other Stump Puller has this feature. It is exclusively ours. It saves time and labor. It reduces the cost of clearing land to a minimum. The perfect spiral groove winds the rope like thread on a spool, preserving both its life and form. This in itself is an important feature, and one that every purchaser of a Stump Puller should consider carefully before buying. You will earn the price of our machine in twelve months in the saving of rope alone as compared with the wear and tear of rope on other makes of Drums. Don't forget this point in buying a Stump Puller.

The Main Frame is made to set on rough or level ground, on the hillside or swamp without danger of rolling or raising up under a heavy strain. Its rigidity is absolute. In moving from one anchor to another the team is hitched to the frame, and the machine slides along on the ground like a sled.

The Safety Drum Ratchet. On this machine the Safety Drum Ratchet performs the function of the Double Ratchet on other makes of machines. It is on the top of the upper flange of the Drum out of the way of the winding rope, protected entirely by the Yoke, and is worked by an automatic Pawl, insuring perfect safety should anything give way about the harness, whiffletree or sweep.

The Sweep Lift is one of the most simple in construction of any device in use for throwing a machine in and out of gear. It is hung on a shaft running down through the Sweep into the machine and resting in the axle of the Platform. A ring is provided to fit over the Sweep and a hand lever is reversed to raise and lower it in place in the Sweep-Cap.

The Take-Up. The Take-Up for slack rope enables one to make a hitch to a stump or tree any place on the rope, so that you can start the machine with an empty Drum. It is one of our own improvements.

Our Rope. We furnish the best grade of ENGLISH STEEL ROPE with every machine. This rope is made especially for use on Stump Pullers, combining toughness, elasticity and flexibility. All ropes are rigged so they can be instantly attached to the Drum, or taken off to be coiled up and housed when not in use, and are fitted with a Rope Hook on the pull end. The Anchor Loops are fastened with a Rope Coupler, making a perfect and everlasting fastening.

The ropes furnished with our machine are in those exact lengths that we have found from actual practice and experience are best suited for clearing land with the greatest speed and at the lowest cost per acre. We can, however, furnish rope in any length or size customer desires.

When extra lengths of rope are required for heavy or scattering stumps or trees we advise that it be ordered in short pieces of twenty-five feet, fifty feet or seventy-five feet, fitted with our patent Rope and Loop Couplers, enabling one to speedily connect the ropes or disconnect them as distance requires.

Capacity: One of the important things for every purchaser of a Stump Puller to consider is capacity. Soil conditions vary with the season. Especially is this true of dry times when the ground is baked like brick, or of wet times when the ground is loose. The capacity of our machines are based on normal conditions, in all kinds of timber. We urgently advise the purchaser to get a machine large enough, and at the prices we are giving you today you can easily afford to do this.

The Question of Material. This is a matter of secondary consideration, although important. In this machine the different parts are proportioned to equalize the strain, and the material used is selected with a care to give it a breaking strength double that of the rope used. This not only insures sufficient strength in the machine itself, but serves to take care of any sudden stress that may occur.

Our Guarantee. In strength, capacity, lightness in weight, ease of operation and economy in the cost of clearing land, we will guarantee this machine to have a distinct advantage over any other make of Grooved Drum Stump Puller on the market, and at one-half the price of the so-called "all steel machines." We guarantee our machines for three years, and will replace absolutely free any part of our machine broken because of defective material during that time.

Free Trial

Send us your order for a Premier Stump Puller, and after using it thirty days if you do not find it exactly as represented we want you to notify us, and if we cannot mend the trouble to your entire satisfaction, we will take the machine off your hands and refund your money.

2-X-11401. This machine is suited for use by hand or one horse. Is recommended for pulling trees and stumps up to 4 inches in diameter. If used with our No. 1 snatch block, double the power can be obtained. Is furnished complete with 5 ft. Anchor Loop and 30 ft. of ½-inch pull rope. Shipping weight about 175 lbs. Price.....$29.50

2-X-11403. This machine is suited for use with two horses, on a 12 ft. sweep, and is recommended for pulling trees and stumps up to 18 inches in diameter. If used with our No. 2 snatch block double the power can be obtained. Is furnished complete with 6 ft. Anchor Loop and 50 ft. ¾-in. pull rope. Shpg. wt., abt. 350 lbs. Price.$58.75

2-X-11402. This machine is suited for use with one horse on a 10 ft. sweep. Is recommended for pulling trees and stumps up to 8 inches in diameter. If used with our No. 1 snatch block, double the power can be obtained. Is furnished complete with 5 ft. Anchor Loop and 40 feet of ⅝-in. pull rope. Shpg. wt. abt. 225 lbs. Price.$44.50

2-X-11404. This machine is suited for use with two horses, on a 14 ft. sweep and is recommended for pulling trees and stumps up to 24 inches in diameter. If used with our No. 2 snatch block, double the power can be obtained. Is furnished complete with 8 ft. Anchor Loop and 60 feet of ⅞-inch pull rope. Shipping weight about 425 pounds. Price $78.50

2-X-11405. This machine is suited for use with two horses, on a 16 ft. sweep and will pull the largest as well as the smallest trees and stumps. If used with our No. 3 snatch block, double the power can be obtained. Is furnished complete with 8 ft. Anchor Loop and 70 feet of 1-in. pull rope. Shipping weight about 550 pounds. Price....$98.00

ATTACHMENTS FOR PREMIER STUMP PULLERS

Steel Wire Rope

2-X-11413. Steel Wire Rope. Price of rope does not include fittings. We make no extra charge for attaching fittings when ordered with rope. This rope is of the finest quality steel, noted for its strength and durability, and will prove satisfactory in every respect.

½ inch. Price, per foot	15½c
⅝ inch. Price, per foot	$0.20
¾ inch. Price, per foot	.27
⅞ inch. Price, per foot	.35
1 inch. Price, per foot	.45

Larger dimensions quoted on application.

Rope Hook & Loop Coupler

2-X-11455. Rope Hook and Loop Coupler. Illustration shows Rope Hook on end of one Rope and Loop Coupler on end of other rope. Can be used in connection with each other or separately The handiest and most durable device for connecting ropes.

Prices are for set consisting of Hook and Coupler

For ½ inch rope, each	$2.65
For ⅝ inch rope, each	3.25
For ¾ inch rope, each	3.80
For ⅞ inch rope, each	4.35
For 1 inch rope, each	5.25

Snatch Blocks

2-X-11419. No. 1, for use on Nos. 1 and 2 machines, complete with 10-foot ⅝-inch Hitch Rope. Price..... **$13.00**

No. 2, for use on Nos. 3 and 4 machines, complete with 15-foot, ⅞-inch Hitch Rope. Price.....$18.35

No. 3, for use on No. 5 machine, complete with 15-foot, 1 inch Hitch Rope. Price.....$23.60

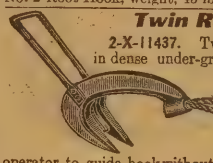
Root Hooks

2-X-11431. Root Hooks (Steel). Made in two sizes of best material, a hook that will give the best of service and satisfaction.

No. 1 Root Hook, weight, 30 lbs. Price..... **$7.25**

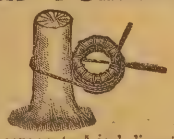
No. 2 Root Hook, weight, 45 lbs. Price.....$9.50

Twin Root Hook



2-X-11437. Twin Root Hook. Made for use in dense under-growths, such as mesquite, sage brush and willow bunches, etc. Is adapted for use with any size machine. Made of cast steel Handles enable operator to guide hook without danger of injury. Weight, 80 lbs. Price..... **$20.00**

Rope Shorteners



2-X-11425. Rope Shorteners. For use where long Drum Rope is used for making hitch to stump at any point in the rope, avoiding winding of slack rope on drum. No. 1 Rope Shortener, for use with rope up to ⅝ inch diameter. Price..... **$3.65**

No. 2 Rope Shortener, for use with rope up to ¾ inch diameter. Price.....$5.25

No. 3 Rope Shortener, for use with rope up to 1 inch diameter. Price.....$6.30

Anchor Ropes

2-X-11439. Patent Anchor Ropes. With this attachment the machine can be anchored any place, to the ground, to a tree or to a stump, allowing the sweep to pass between the machine and anchorage. Made of best steel wire rope fitted with rope hooks and loop coupler, and if desired can be used for lengthening the pull rope. One of the latest improvements on stump pullers made. Each rope 25 feet long.

Prices of Anchor Ropes.

25-foot, ⅝ inch Anchor Rope, weight, 30 lbs. Price.	**$8.10**
25-foot, ¾ inch Anchor Rope, weight, 45 lbs. Price.	$10.50
25-foot, ⅞ inch Anchor Rope, weight, 50 lbs. Price.	13.10
25-foot, 1 inch Anchor Rope, weight, 75 lbs. Price.	16.50

STEEL CABLE AND ROPE

Brand New Standard Wire Hoisting Rope

Made up of six strands, 19 wires to the strand, laid around a hemp center.
SWEDISH IRON ROPE. Is used for hay presses, hoisting and all general purposes.
CRUCIBLE STEEL ROPE. Is much stronger and is used in mines, on derricks and for any kind of hoisting work where a strong rope is required, and its use is urged on any job where lives may be placed in jeopardy by the use of rope not suited for the purpose. Subject to quantity on hand.

2-X-11601. Swedish Iron Rope

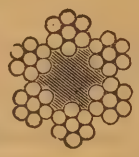
Diam. Inches	Weight per ft. in lbs.	Approx. breaking strain in tons of 2,000 lbs.	Price per ft.
¼	0.10	1.10	$0.08
⅜	0.22	2.4	.09
½	0.39	3.9	10
⅝	0.62	6.	.14
¾	0.89	8.5	.19
⅞	1.20	11.8	.24
1	1.58	14.5	.31
1⅛	2.00	18.6	.40

2-X-11603 Crucible Steel Wire Rope.

Diam. Inches	Weight per ft. in lbs.	Approx. breaking strain in tons of 2,000 lbs.	Price per ft.
¼	0.10	2.2	$0.10
⅜	0.22	4.8	.11
½	0.39	8.4	.12½
⅝	0.62	12.5	.16
¾	0.89	17.5	.21
⅞	1.20	23.	.26
1	1.58	30.	.34
1⅛	2.	38.	.41

Brand New Swedish Transmission or Haulage Rope

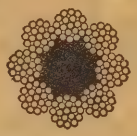
2-X-11605. Composed of six strands, hemp center, each having 7 wires. This rope is used principally for transmission of power over large sheaves or drums. This rope is not flexible enough to be used over small sheaves or drums. Note minimum diameter of drum or sheave in table below. Subject to quantity on hand.



Diam. Inches	Weight per ft. in lbs.	Approx. breaking strain in tons of 2000 lbs.	Minimum Diam. of drum or sheave in feet	Price per ft.
⅜	0.22	4.8	2½	$0.06½
½	0.39	8.4	3½	.08
⅝	0.62	13.2	4½	.12
¾	0.89	18.6	6	.17
⅞	1.20	24.	7	.22
1	1.58	32.	8	.27

Extra Flexible Wire Rope

2-X-11607. Brand new. Composed of 8 strands and a hemp center, each strand having 19 wires. This rope has two more strands and smaller wires than the regular 6 strand rope, and is especially adapted for running over comparatively small sheaves on derricks, coal handling machinery, cargo hoisting, pile drivers, logging purposes and transmission of power.



On account of the somewhat larger hemp center, the strength is less than that of the regular 6 strand rope, but under many conditions where extreme pliability is required, this extra flexible rope, owing to its ability to withstand severe bending, retains its strength longer than the stiffer 6 strand rope.

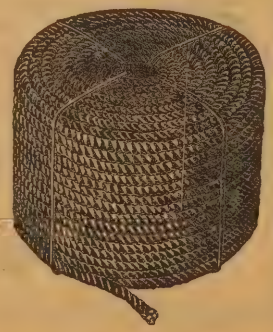
Subject to quantity on hand.

Diam. Inches	Weight per ft. in lbs.	Approx. breaking strain in tons of 2000 lbs.	Minimum diam. of drum or Sheave in inches	Price per ft.
⅜	0.18	3.3	6	$0.12
½	0.31	6.6	6	.13½
⅝	0.53	11.6	8	.18
¾	0.89	16.5	14	.23
⅞	1.05	21.	14	.30
1	1.32	27.	18	.37

Brand New Hawser Laid Manila Drilling Rope

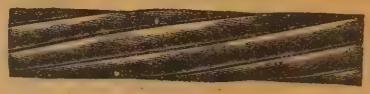
2-X-11609. The Hawser Laid Manila Rope is used generally for well drilling purposes, and it is very necessary that rope used for this purpose be well made and of the very best quality, pure, long fibre manila. We offer this rope as the very best quality manufactured. It is made of the best grade of manila hemp. Nothing but the best fibre is used. It is laid up by experienced rope makers in a compound that lubricates and protects it from water and weather.

Size Inches	Price per ft.	Size Inches	Price per ft.	Size Inches	Price per ft.
¾	$0.09	1⅛	$0.22	1½	$0.35
⅞	.13½	1¼	.27	1¾	.54
1	.16	1⅜	.30½	2	.63



Galvanized Steel Wire Strand

Brand New.



2-X-11611. This strand is composed of 7 wires, twisted into a single strand. Is used for guys on smoke stacks, telegraph and telephone poles and many other purposes.

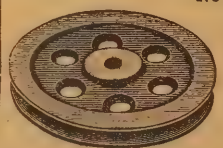
Diam. Inches	Approx. Strength in lbs.	Weight per ft.	Price per 100 ft.
¼	2300	1.25	$1.75
⅜	5000	3.	3.50
½	8500	5.	5.50

GALVANIZED IRON WIRE ROPE.
Brand New.

2-X-11613. For derrick guys, etc. Not suitable to run over drums or sheaves.
Composed of 6 strands and hemp center, 7 wires to the strand.

Diam. Inches	Weight per Ft.	Approx. Breaking Strain in tons of 2,000 lbs.	Price per Ft.
⅜	0.20	1.8	$0.07
½	0.36	3.2	.09
⅝	0.64	5.8	.12
¾	0.81	7.3	.14
⅞	1.21	11.	.21
1	1.44	13.	.23

IRON SHEAVES FOR WIRE ROPE.
Deep Grooves, Common Iron Bushed, Brand New.



2 - X - 8999. These sheaves as priced below are to run loose on the shaft. We cannot furnish them bored for larger sized shaft than specified, nor can they be fitted with set screws or key seated.

Diam. Sheave Inches	Length Through Hub Inches	Size of Hole for Shaft Inches	For Diam. Wire Rope Inches	Price Each
5	¾	½	⅜	$0.60
6	¾	⅝	⅜	.85
6	1	¾	½	.90
8	1	¾	½	1.95
8	1	⅞	⅝	1.98
10	1	⅞	½	2.70
10	1¼	⅞	⅝	2.95
12	1	1	½	3.35
12	1¼	1	⅝	3.40
14	1½	1	⅝	4.75
14	1½	1⅛	¾	5.30
14	1⅞	1	¾	4.80
16	1¼	1¼	¾	7.25
18	1⅜	1¼	¾	9.85
18	2⅛	1¼	1	11.20

GUARANTEED PURE MANILA NEW ROPE

Made of selected Long Pure Manila fiber. Our rope is not mixed with sisal or any other cheaper fibers, but is guaranteed to be strictly pure long manila fiber of the very best quality. Prices on manila rope subject to change. We furnish this rope in connection with Hay Carrier outfits, which are described on page 769. The ⅜-inch is used for the Trip and the ¾-inch is generally used for the Carrier, although in connection with our outfits either the ⅞-inch or the 1-inch rope can be used.

2-X-11617

Size, Inches	¼	⅜	½	⅝	¾
Price, per foot	¾	1½	2½	4	5

Size, Inches	⅞	1	1⅛	1¼	1½
Price, per foot	8c	10c	11c	12c	20c

Prices on Wire and Manila Rope Subject to Market Changes.

IRON PIPE ROLLERS.

6-X-11501. Made of Heavy Tubing.

Outside Diam.	Approx. Wt. per ft. lbs.	Price per ft.	Outside Diam.	Approx. Wt. per ft. lbs.	Price per ft.
2	2⅜	$0.12	5	13	$0.52
2½	3⅜	.14	5½	15	.60
2¾	5¾	.23	6½	19	.76
3½	7½	.30	7½	24	.96
4	9	.36	8½	29	1.16
4½	10½	.45			

WIRE ROPE CLIPS.

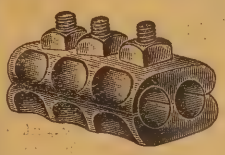
Brand New.

2-X-11503. These clips are used to make a loop of an eye at the end of a rope without splicing.

Size for Rope Diam. Inches	Price Each
¼	$0.06
⅜	.08
½	.11
⅝	.14
¾	.17
⅞	.24
1	.28
1⅛	.44
1¼	.54
1⅜	.77
1½	.88

WIRE ROPE CLAMPS.

2-X-11505. For Bridges and Cable Ways.



Size for Rope Diam. Inches	Price Each
¼	$0.50
⅜	.70
½	.80
⅝	1.20
¾	1.50
⅞	1.80
1	2.00
1⅛	3.00
1¼	3.25
1½	4.25

WIRE ROPE SOCKETS—Closed Pattern.

2-X-11507.

Size for Rope Diam. Inches	Price Each	Size for Rope Diam. Inches	Price Each
⅜	$1.75	⅞	$4.50
½	2.15	1	5.75
⅝	2.65	1⅛	6.85
¾	3.30	1¼	9.50

WIRE ROPE SOCKET WITH HOOK.

2-X-11509.

Size for Rope Diam. Inches	Price Each	Size for Rope Diam. Inches	Price Each
⅜	$2.50	⅞	$5.70
½	3.10	1	6.85
⅝	3.35	1⅛	9.10
¾	4.50	1¼	11.50

GALVANIZED WIRE ROPE THIMBLES.

2-X-11511.

Size for Rope Diam. Inches	Price Each
¼	$0.06
⅜	.07½
½	.08½
⅝	.10
¾	.11
⅞	.17
1	.22
1⅛	.42
1¼	.50
1⅜	.63
1½	.75

PATENT WIRE ROPE HOOKS AND COUPLINGS.

These hooks are made of malleable iron and can be bent cold. The cheapest and simplest fastening for rope manufactured.

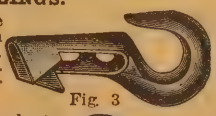


Fig. 3

2-X-11513. Fig. 3, Hook.

Size	⅜"	½"	⅝"
Price	35c	55c	75c

2-X-11515. Fig. 5, Ring.

Size	⅜"	½"	⅝"
Price	35c	55c	75c

Fig. 5

2-X-11517. Fig. 6, Coupling.

Size	⅜"	½"	⅝"
Price	36c	58c	75c

Fig. 6

Wrought Iron TURNBUCKLES Painted Black

These Turnbuckles are considered the best on the market. Are made of wrought iron, painted black. We have them in stock and can furnish promptly.

	Diameter of Thread	Length of Thread	Price Each
2-X-11547	3/16	3½	$0.85
2-X-11548	¼	4	.95
2-X-11549	5/16	4¼	1.00
2-X-11550	⅜	4½	1.10
2-X-11551	7/16	5¼	1.40
2-X-11552	½	6	1.80
2-X-11553	⅝	9	2.25
2-X-11554	¾	9	3.00
2-X-11555	⅞	12	3.25
2-X-11556	1	12	3.60

Write for prices on larger sizes.

USED WIRE ROPE FOR HOISTING.

Nineteen Wires to the Strand. Six Strands. Laid Around Hemp Center.

2-X-11525. This rope is particularly adapted for service in mines, for logging on elevators, derricks, hay presses and hoists of all kinds.

Diam. Inches	Weight per ft. in pounds	Price per ft. Selected Second Hand Rope
½	0.39	$0.04
⅝	0.62	.06
¾	0.89	.09
⅞	1.20	.12
1	1.58	.16
1⅛	2.45	.20

USED GALVANIZED WIRE STRAND

2-X-11527. This Strand is composed of seven steel wires, twisted into a single strand.

For Smoke Stack Guys, Electric Light Plants, Street Railways, Signal Cord, Fencing, etc.

Approx. Diam. In.	Price per 100 ft.
⅜	$1.50
½	1.75

USED WIRE ROPE

2-X-11531. 15,000 feet of ⅝ inch Crucible Steel Wire Rope, composed of six strands, 19 wires to the strand. This rope comes in short lengths, ranging from 30 to 100 feet. It is in good, fair second hand condition, but is too short to splice profitably.

It is suitable for logging, hoisting and for almost any purpose for which wire rope is generally used.

We offer it at this special price only in lengths as we may have in stock.

Price, per foot.....4c

2-X-11533. 30,000 feet of ⅝ inch second hand Wire Rope, composed of six strands, 19 wires to the strand in lengths ranging from 30 to 100 feet. This rope is somewhat worn, having here and there a broken wire. It is not recommended for hoisting, but can be used for many other purposes such as logging, fencing, etc.

This rope we offer in such lengths as we have in our stock.

Price, per foot.....3c

2-X-11535. 20,000 feet of ¾ inch Crucible Steel Wire Cable, composed of six strands, 19 wires to the strand. Is in good second hand condition, but in view of the fact it is in short lengths, ranging from 30 to 125 feet, we offer it at special price, only in such lengths as we have in our stock.

Price, per foot.....7c

2-X-11537. 15,000 feet of ¾ inch second hand Cable, composed of six strands, 19 wires to the strand, in lengths ranging from 30 to 100 feet. This Cable is somewhat worn, having here and there a broken wire. It is not recommended for hoisting, but can be used for many other purposes, such as logging, fencing, etc.

This cable we offer in such lengths as we have in our stock.

Price, per foot.....5c

2-X-11539. 85,000 feet of 1¼ inch second hand Crucible Steel Cable, composed of six strands, 7 wires to the strand. This cable is in good second hand condition and runs in lengths up to 1,000 feet.

Price, per foot in lengths.....25c

JACK SCREWS

4-X-11519. The Bell Base of these Jack Screws is made of the toughest gray iron it is possible to obtain. **The screws are wrought iron, lathe turned.** Every jack is tested and its carrying capacity is fully guaranteed. Levers are not furnished with the Jacks.

Diam. of Screw In.	Height of Stand Inches	Height over all In.	Lifting Capacity Tons	Price Each
1¼	8	10½	10	$2.50
1¼	12	14½	10	3.05
1½	8	10¾	12	3.10
1½	10	12¾	12	3.45
1½	12	14¾	12	3.85
1¾	10	13	16	4.20
1¾	12	15	16	4.55
2	10	13¼	20	4.95
2	12	15¼	20	5.50
2	14	17¼	20	5.90
2	16	19¼	20	6.70
2½	14	18	28	8.75
2½	18	22	28	10.60
2½	20	24	28	11.45

"PREMIER" RATCHET JACKS

4-X-11521. Easily operated and can be used in close places. The stand of this Jack is made of tough gray iron and the screw is made of special steel with deep lathe cut thread.

Diameter of Screw....2 inches
Height over all.....23 inches
Lifting capacity.....25 tons
Price, each $5.50

HOUSE RAISING JACKS

4-X-11523. Cast Iron—Brand New.

These Screws are cast with Seamless Threads which makes them very smooth and uniform.

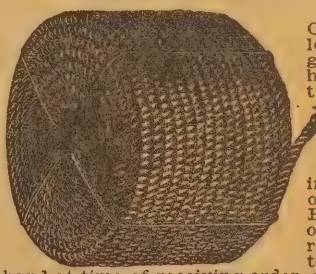
Diam. of Screw Inches	Height Over All Inches	Price Each
3	18	$3.30
3	20	3.60
3	24	4.30
3	30	5.10
3	36	5.95

Used House Raising Jacks

300 used jacks practically as good as new. While they last, 4-X-11524 Size 3x24 only, Each.....$1.50

USED MANILA ROPE

Subject to Stock on Hand



2-X-11543. Carefully selected and in good second hand condition. We generally have on hand a fair range of lengths in the sizes offered. However, we offer this rope subject to stock on hand at time of receiving order, and in sending in your order it is advisable to state whether or not it will be satisfactory that we furnish new rope should we not have the second hand material at that time.

Diam. Inches	Price per ft.	Diam. Inches	Price per ft.
¾	2½c	1⅛	6c
⅞	4c	1¼	7c
1	5c	1½	10c

WRITE FOR PRICES ON ALL WIRE ROPE PARTS YOU NEED

BLOCK AND TACKLE

IRON STRAPPED WOOD SHELL TACKLE BLOCKS.

These blocks are of the best possible construction. Have special chilled steel pins and iron sheaves with edges properly rounded to prevent the rope from fraying.

We can furnish these blocks either with or without beckets. Illustration of double block shows becket. When used in pairs, one should be plain and the other with becket. When becket is required, be sure to order accordingly. Price of blocks with or without the beckets is the same.

These blocks are to be used only for manila rope. You cannot use wire rope or chain in connection with these blocks.

2-X-11701. Without becket.
2-X-11702. With becket.

Diam. Rope Inches	Length of Shell	Single Pulley	Double Pulley	Triple Pulley
⅜	3"	$0.70	$ 1.30	$ 1.75
½	4"	.85	1.60	2.15
⅝	5"	.90	1.75	2.25
¾	6"	1.10	2.00	2.90
⅞	7"	1.30	2.40	3.50
1	8"	1.65	2.85	4.25
1⅛	10"	3.00	5.00	7.00
1¼	12"	5.00	8.25	11.75
1⅜	14"	8.00	11.50	16.50
1½	15"	9.00	14.50	20.00

STANDARD STEEL TACKLE BLOCKS.
For Manila Rope.

These are lighter than wood blocks and equally as strong. Are made with forged steel hooks, straps, pins and shells. Straps extend full length of shell, giving strength and rigidity to the blocks and furnishing proper support for beckets. Shells have nicely rounded edges to protect rope. These blocks are intended for use with manila rope only. You cannot use wire rope or chain.

2-X-11704. Without becket.
2-X-11705. With becket.

Diam. Rope Inches	Length of Shell	Single Pulley	Double Pulley	Triple Pulley
⅜	3"	$0.70	$1.35	$ 1.75
½	4"	.85	1.60	2.15
⅝	5"	.90	1.75	2.25
¾	6"	1.10	2.00	2.90
⅞	7"	1.30	2.40	3.50
1	8"	1.65	2.85	4.25
1⅛	10"	3.00	5.00	7.00
1¼	12"	5.00	8.25	12.00

STANDARD WOOD SHELL IRON STRAPPED SNATCH BLOCKS.

2-X-11707.

Size of Sheave	Diam. Rope Inches	Length of shell Inches	Price Each
3 x1⅛	⅞	6	$ 4.00
3½x1¼	⅞	7	4.75
4½x1⅜	1	8	5.75
5 x1⅜	1⅛	9	6.75
5¾x1⅞	1¼	10	8.50
6¾x1⅞	1½	12	10.00
8 x2¼	1¾	14	13.00
9 x2⅝	2	16	17.00

STEEL SNATCH BLOCKS.

2-X-11709. These blocks are much stronger than other metal and wood shell blocks, and they are practically indestructible. The shell is made of special wrought steel, edges nicely rounded to prevent the rope from wearing, and will outlast the cheaper metal blocks. The steel block we can recommend for the heaviest work.

Can not be used with wire rope or chain.

Size of Sheave Inches	Diam. Rope Inches	Length of Shell Inches	Price Each
3 x1⅛	¾	6	$ 4.40
3½x1¼	⅞	7	5.25
4½x1⅜	1	8	6.25
5 x1⅜	1⅛	9	7.50
5¾x1⅞	1¼	10	9.25
6¾x2⅛	1½	12	11.00
8 x2¼	1¾	14	14.50
9 x2⅝	2	16	19.00

Prices on this page subject to market changes.

WIRE ROPE BLOCKS.

2-X-11711. These blocks are specially designed to be used in connection with wire hoisting rope, having large sheaves.

You cannot use the wood and iron shell manila rope tackle blocks in connection with the wire rope owing to the fact that the sheaves are too small to permit the wire rope running freely over them.

Diam. Shv.	For Rope In.	Single Price Each	Double Price Each	Triple Price Each
10"	⅝ and less	$14.00	$20.00	$28.00
14"	¾	18.00	25.00	36.00
16"	⅞	25.00	36.00	45.00

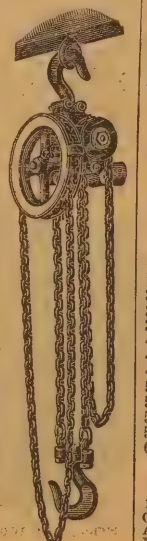
WESTON DIFFERENTIAL CHAIN HOIST.

2-X-11783. Tested to full weight before shipment. This is the simplest and cheapest type of chain hoist, and has the fewest parts of any hoist made. The chains are specially made, are finely finished and carefully hardened to prevent wear. This hoist will hold a load at any point. Each hoist is guaranteed fully in every particular.

Capacity Tons	Will lift feet	Price Complete	Extra Chain Price per ft.
½	7	$17.50	$0.25
1	8	25.00	.27
1½	8½	32.00	.29
2	9	44.00	.31
3	10	52.00	.35

Four feet of extra Chain required for every foot of extra lift.

IMPROVED SCREW CHAIN HOIST.



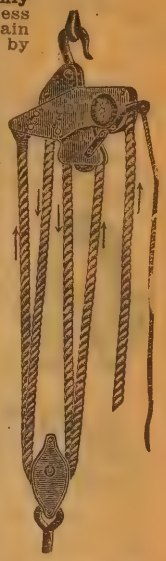
2-X-11715. These hoists are powerful and compact. They are extensively used for all classes of work. They are much easier to operate than the Differential Hoist, inasmuch as they are geared up. The gearing is enclosed in oil tight housing and the working parts are thus always immersed in oil, insuring smooth action and thorough lubrication.

Capacity Tons	Wt. lbs.	Lift feet	Price Cmplt.	Extra Price per ft.
½	50	8	$43.50	$1.12
1	60	8	52.50	1.40
1½	76	8	70.00	1.64
2	125	9	90.00	1.87
3	190	10	130.00	2.06
4	210	10	165.00	2.25

The Fastest Chain Hoist Made

Special Prices on Sizes up to 10 Tons

BURR STEEL SAFETY LIFTS.



These lifts are thoroughly practical and are much less expensive than the chain hoists. Are used largely by contractors, bridge builders, grocers, farmers, in fact can be used anywhere it is necessary to raise heavy weights. These lifts are made of the highest quality of steel and are practically indestructible. They have no wedge, eccentric springs or teeth that will get out of order. The brake against which the rope is locked is smooth and therefore cannot injure the rope.

These lifts are designed to be used in connection with manila rope only. Prices quoted do not include the rope.

2-X-11717. Size No. 3, for ⅜ inch rope. One man can hoist 300 lbs. Double lower block, weight 4⅛ lbs. Capacity 800 lbs. Price...**$2.00**

2-X-11719. Size No. 4, for ½ inch rope. One man can hoist 350 lbs. Double lower block, weight 6½ lbs. Capacity 1,500 lbs. Price.....**$3.50**

2-X-11721. Size No. 5, for ⅝ inch rope. One man can hoist 400 lbs. Double lower block, weight 11 lbs. Capacity 2,000 lbs. Price.....**$5.00**

2-X-11723. Size No. 6, for ¾-inch rope. One man can hoist 450 lbs. Double lower block, weight 17 lbs. Capacity 2,500 lbs. Price.....$6.00

2-X-11725. Size No. 4½, for ½-inch rope. One man can hoist 600 lbs. Triple lower block, weight 10 lbs. Capacity 3,000 lbs. Price.....**$7.50**

2-X-11727. Size No. 5½, for ⅝-inch rope. One man can hoist 700 lbs. Triple lower block, weight 20 lbs. Capacity 3,500 lbs. Price.....**$8.75**

2-X-11729. Size No. 6½, for ¾-inch rope. One man can hoist 850 lbs. Triple lower block, weight 28 lbs. Capacity 5,000 lbs. Price.....**$10.00**

"I" BEAM TROLLEY.

A simple and practical "I" Beam Trolley with steel side plates, anti-friction bearings adjustable to three sizes of "I" Beams. Can be put on track from side of beam if desired.

Lot No.	Capacity in Tons	Sizes of I-Beams	Weight Pounds	Price Each
2-X-11559	½	5- 6- 7	25	$ 9.00
2-X-11560	1	6- 7- 8	40	11.00
2-X-11561	1½	7- 8- 9	80	17.25
2-X-11562	2	8- 9-10	120	23.15
2-X-11568	3	9-10-12	135	28.00
2-X-11564	4	10-12-15	140	33.00
2-X-11565	5	12-15-18	310	36.25
2-X-11566	6	15-18-20	400	47.00
2-X-11567	8	18-20-24	450	55.00
2-X-11568	10	18-20-24	500	62.00

HARD MAPLE ROLLERS.

4-X-11731. For House and Machinery Moving. These rollers are turned from air seasoned, quarter-sawed rock maple squares. They are free from hearts. Only the best and toughest part of the log being used. All rollers are treated with boiled linseed oil and ends are painted before shipment.

Guaranteed to be the best possible to produce.

Diam. Inches	Length Feet	Price Each	Diam. Inches	Length Feet	Price Each
3	3	$1.00	6	4	$5.60
3	4	1.40	6	4' 8"	6.60
3½	3	1.80	6	5	7.10
4	3	1.95	6	6	8.50
4	4	2.40	7	3	6.00
4	5	3.00	7	4	8.00
5	3	2.80	7	4' 8"	9.00
5	4	4.00	7	5	10.00
5	5	4.80	7	6	12.00
5	6	6.00	7	7	14.00
6	3	4.25			

IRON PIPE ROLLERS.

6-X-11733. Made of Light Tubing. Can furnish in lengths from two to twelve feet.

Outside Diam.	2	2½	3	3½	4	4½	5	6	8
App. wgt. per ft.	2	2½	3½	4½	5½	6¾	7¾	10½	15
Price per ft.	15c	19c	23c	25c	30c	45c	55c	75c	94c

Read Our Binding Guarantee on Paints

IMPROVED FARM IMPLEMENTS PRICED VERY LOW!!

Harris Leader Fanning Mill

$22.40

16-X-8620. Standard type Fanning Mill with all new improved features of construction quick show movement, large screening surface. Two spouts attached to the show, one being the grader spout and the other arranged so that all grain which passes over the lower screen may be delivered to the opposite side of crank. Regularly furnished with one wheat or rye hurdle, one corn or oats sieve, one bean or barley sieve, one wheat grader, two wheat or barley screens, one pair of fan blinds and one cockle board. This outfit is shipped, unless otherwise specified. When ordering from the following list simply specify the outfit you wish and your machine will be properly fitted with the necessary attachments to do perfect work.

Two Sizes—No. 1 sieve 22½" wide, capacity 60 to 80 bushels per hour; No. 2 sieve 26½" wide, capacity 70 to 100 bushels per hour.

No. 1 Mill for grading and cleaning grains	$22.40
No. 2 Fanning Mill for grading and cleaning grains	24.90
No. 1 Mill for grading and cleaning grains and flax	24.45
No. 2 Mill for grading and cleaning grains and flax	27.30
No. 1 Mill for grading and cleaning grains, clover and timothy	25.40
No. 2 Mill for grading and cleaning grains, clover and timothy	28.55
No. 1 Mill for grading and cleaning grains, clover, timothy and flax	26.30
No. 2 Mill for grading and cleaning grains, clover, timothy and flax	29.75
Bagging attachment for either size	12.80
Corn grading attachment for No. 1 Mill	4.40
Corn grading attachment for No. 2 Mill	5.25

Harris Leader Square End One Hole Corn Sheller

$9.95

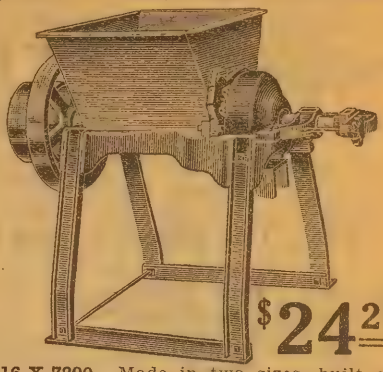
Efficient and Durable

16-X-8067. An excellent Corn Sheller with strong hardwood frame. Shaft made of cold rolled steel and all parts properly proportioned. Gearing on outside of frame will not clog; protected by hood to avoid accidents; heavy balance wheel; geared low for easy operation. Good sized feed table. Feed spout placed over two shelling wheels which grip the ears firmly. Adjusted to shell any kind of grain perfectly. When fitted with fan this machine will clean corn nicely. If you intend to run your sheller by power, we furnish a clamp pulley to attach to balance wheel. Weight, 110 lbs. Price without fan or feed table; otherwise complete $9.95

16-X-8065. Sheller complete with fan, feed table, crank and balance wheel .. $11.75

Pulley for power 8-inch diameter, 2-inch face $1.00

Harris Cob Crushers and Feed Grinders



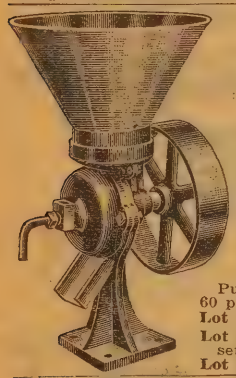
$24.25

16-X-7200. Made in two sizes, built entirely of steel and iron. Will grind ear corn, shell corn, barley, rye, oats and any kind of grain separately or mixed. Burrs easily regulated for coarse or fine grinding while machine is in motion. Cob breakers are bolted to sides and bottom of main frame; made of hard chilled iron arranged in spiral fashion. All bearings fully babbitted. Burrs made of most durable metals for long service.

No. 3 Machine with two sets of 8-inch burrs, 35-lb. balance wheel, pulley size 8x6 inches, capacity 10 to 30 bushels per hour, requiring from 3 to 6 horse power. Weight, 245 lbs. Price $24.25
Extra burrs, coarse or fine, per set $1.50
Weight, 355 lbs.

No. 14 Machine with two sets of 10-inch burrs, 55-lb. balance wheel, pulley size 12x6 inches, capacity 30 to 60 bushels per hour, requiring from 7 to 12 horse power. Price $34.25
Extra burrs, coarse or fine, per set $2.10
5-ft. double sacking elevator for either size $22.35
10-ft. wagon box elevator with swing spout for either size $34.25

HARRIS FEED MILL



An excellent little mill for light power; taking up small space, just the machine you want where a limited amount of grinding is to be done. Built especially for engines from 1½ to 4 H.P.

Will grind shelled corn, wheat, oats, speltz, barley, rye and all kinds of small grain separately or mixed.

It is built entirely of iron and steel and every part is strong enough to resist six times the actual working strain.

The bearings are long and lined with a high grade babbitt and can be oiled while mill is running.

The burrs are 5½ inches in diameter, ground perfectly true. Can be adjusted for fine or coarse grinding while running.

Pulley, 12 inches diameter, 3-inch face, Weight 60 pounds. Furnished with 2 sets burrs.

Lot 16-X-7117. Price, complete $8.75

Lot 16-X-718. Extra Burrs, coarse or fine, per set $1.25

Lot 16-X-7119. Balance Wheel, 15 lbs. .. 1.65

HARRIS GRIST MILL

Every country home should be supplied with one of these Grist Mills. They are perfect machines, having removable, hard iron burrs which are ground true, and which can be adjusted so as to grind to any degree of fineness.

Will grind corn, wheat, rye, peas, salt, etc., so that one may have fresh corn meal, graham flour, hominy, and fine table salt at any and all times.

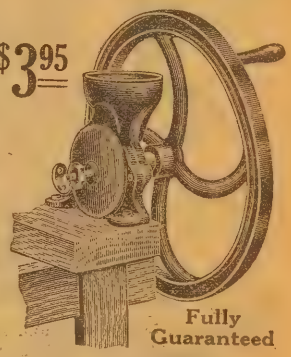
Especially desirable in sparsely settled districts, where custom mills are not within a convenient distance, or in new countries where there are no mills.

Furnished with one set of burrs only. The machine can be bolted to a table, or any other convenient place.

16-X-8033. Weight, 30 lbs. Price $3.95

16-X-8034. Extra Burrs. Price .. 50c

$3.95



Fully Guaranteed

Harris Hand Corn Sheller

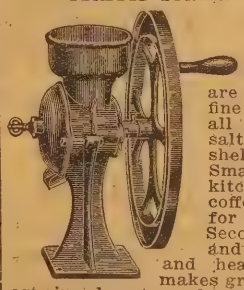
Cast Iron

Handiest and Most Complete Corn Sheller on the Market. This little cast iron corn sheller cannot be equalled for convenience and general utility. It is so simple that there is nothing about it to get out of order and so strong that it will not break.

It can be adjusted to shell large or small ears with equally good results. The adjusting shell is held against the ear of corn by a spring, the tension of which is easily and quickly adjusted. This shell forces the ear of corn against the shelling wheel, and causes the ear to revolve so that the corn is shelled from the ear clean. The shelled corn is dropped into the box to which the sheller is fastened, and the ears are dropped outside.

16-X-8061. Weight, 15 lbs. Price .. $1.45

Harris Hand Grist Mill

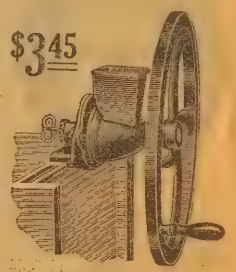


A Handy Mill for any home, especially for those who keep poultry or a cow. Mills are adjustable to grind fine or coarse. Grinds all kinds grain, coffee, salt, dry bones, dry shells, etc. Three sizes. Small size suitable in kitchen for grinding coffee or cracking corn for small flock poultry. Second size much larger and has larger capacity and heavy balance wheel makes grinding easier. Largest size almost equal to small power mill and will easily grind for several head of stock.

	Weight.	Cap. per hr.	Price.
No. 16-X-8037.	No. 1, 25 lbs.	½ to 1 bu.	$3.45
No. 16-X-8038.	Extra Burrs, per pair		.65
No. 16-X-8039.	No. 2, 50 lbs.,	1 to 1½ bu.	6.30
No. 16-X-8040.	Extra Burrs, per pair		1.30
No. 16-X-8041.	No. 3, 78 lbs.,	1¼ to 2½ bu.	9.10
No. 16-X-8042.	Extra Burrs, per pair		1.80

Harris Hand Bone Mill

$3.45



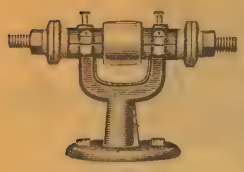
This little grinder reduces the cost of bone meal to mere labor.

Teeth are strong and coarse and will not grind corn for family use. Fresh bones should be allowed to become thoroughly dry before grinding. It will grind oyster shells, gravel, old crockery, cracked corn, and other coarse feed for chickens. Can be adjusted to grind fine or coarse. The crusher is cone shaped, which crushes the product first, then it passes into the coarse grinding plates. This is a much better way than many other mills made with stationary burrs.

16-X-8021. Weight, 35 lbs. $3.45

Two-Wheel Power Emery Grinders

No. 1 Two-Wheel, 6-Inch Emery Grinder



$4.10

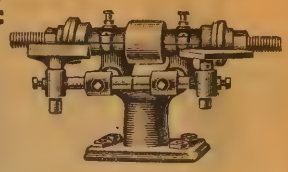
No. 16-X-587. This sturdy little machine runs two wheels 6-inch diameter, 1 inch thick. Has ⅝-inch steel spindle, ⅝-inch between flanges, pulley 1⅞-inch diameter, 1⅝-inch face. Just the thing for the small work shop. A handy little grinder that you will use constantly. Saves your time and lessens your work.

Shipping weight about 11 pounds.
Price, not including stones **$4.10**
6-inch Wheel Guards, per pair.....$1.85

No. 2 Two-Wheel, 10-Inch Emery Grinder

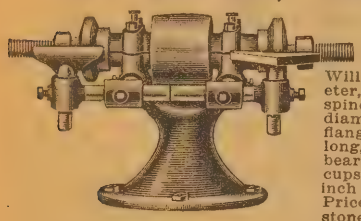
No. 16-X-588. This machine will run two wheels 10 inch diameter, 1½ inch thick. Has a steel spindle ⅞-inch in bearings, ¾-inch between flanges. The bearings are 2 inches long, made with caps, and are adjustable. Mounted with brass oil cups, pulley 2¼-inch diameter, 2-inch face. Weight of Grinder complete about 20 lbs.

$8.20



Price, not including stones **$8.20**
10-inch Wheel Guards, per pair..$3.80

No. 3 Two-Wheel, 12-Inch Emery Grinder



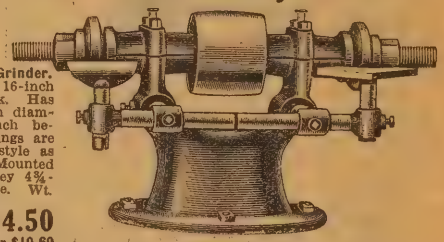
$13.85

No. 16-X-589. Emery Grinder. Will run two wheels 12-inch diameter, 2 inches thick. Has a steel spindle 18 inches long and 1⅛-inch diameter in bearings, 1 inch between flanges. The bearings are 3 inches long, and same style as engine-lathe bearings, mounted with brass oil cups. Pulley 3⅞-inch diameter, 3-inch face. Weight 45 lbs.

Price, not including stones **$13.85**
12-inch Wheel Guards, per pair.$5.45

No. 4 Two-Wheel, 16-Inch Emery Grinder

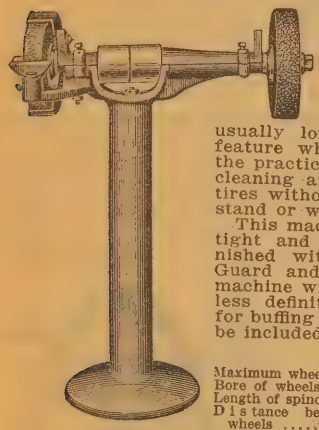
$24.50



No. 16-X-590. Emery Grinder. Will run two wheels 16-inch diameter, 2½ inches thick. Has steel spindle 1 15/16-inch diameter in bearings, 1¼-inch between flanges. The bearings are 4 inches long and same style as engine-lathe bearings. Mounted with brass oil cups, pulley 4¾-inch diameter, 4-inch face. Wt. about 80 pounds.

Price, not including stones **$24.50**
16-inch Wheel Guards, pair.$10.60

Vulcanizers' Special, $22.75



A very practical machine of light weight and low price for tire repair and general garage use. The extended bearing, which is a part of the machine proper, supports the spindle so as to prevent vibration and at the same time allows an unusually long distance between wheels, a feature which will particularly appeal to the practical tire man, as it permits of the cleaning and roughing of the largest size tires without coming into conflict with the stand or wheel on opposite end of shaft.

This machine is regularly furnished with tight and loose pulleys but will be furnished with single pulley if so desired. Guard and tool rest for grinding end of machine will be furnished on all orders unless definitely specified otherwise. Guard for buffing end can be furnished but will not be included unless specifically requested.

SPECIFICATIONS

Maximum wheel size	10x2	Height to center of spindle	36 in.
Bore of wheels	1 in.	Length of bearings	4 in.
Length of spindle	32 in.	Size of pulleys	3¾x3 in.
Distance between wheels	23½ in.	Weight crated	125 lb.

Prices same for either single or tight and loose pulley machine.

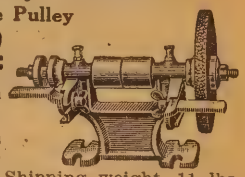
16-X-400. Price, complete.....$22.75
16-X-401. Price, guard only..... 1.90
16-X-402. Price, rest only..... .65

Two-Wheel 6-Inch Emery Grinder

With Tight and Loose Pulley

A very light machine, with Split Cast Iron Bearings, adjustable tool rests. Bearings are arranged so that wear can be taken up and are fitted with nickel-plated Oil Cups. Runs two wheels, 6-inch diam., 1 inch thick.

$4.10



Height Arbor to Table	4½	Inches
Length of Spindle	11	Inches
Bore of Wheel	½	Inch
Distance between Wheels	7½	Inches

Shipping weight, 11 lbs.
16-X-405. Each $4.10

Two-Wheel, 10-Inch Emery Grinder

With Tight and Loose Pulley

$10.50

Long Babbitted bearings, easily adjustable tool rests and large wheel capacity are the distinctive features of this machine. Guards attach to head.

Maximum wheel size	12x 1½
Height spindle to table	7¼"
Length of spindle	18½"
Length of bearings	3 "
Bore of wheel	¾"
Dist. between wheels	12 "

Shipping weight, lbs... 32
16-X-406. Each $10.50
Wheel Guards, per pr., $4.10

"Premier" Corundum Wheels

These wheels are made with the grain running from fine to coarse and of proper hardness to meet the requirements for any kind of grinding.

When ordering be sure and state what kind of material you wish to grind. Whether it is for steel or iron or for edge tools and if for wet or dry grinding. Always mention number, diameter and thickness of wheel and size of hole in center.

No. 16-X-2528.

Diam. Ins.	Thickness, Inches ¼	⅜	½	⅝	¾	1	1¼	1½	1¾	2
2	0.25	0.32	0.35	0.39	0.40	0.42	0.48	0.55	0.59	0.66
3	.33	.42	.45	.48	.53	.59	.68	.76	.88	.96
4	.46	.58	.62	.68	.75	.82	.92	1.06	1.16	1.29
5	.63	.79	.85	.92	1.00	1.09	1.24	1.41	1.57	1.72
6	.79	.99	1.09	1.20	1.30	1.41	1.62	1.84	2.05	2.23
7	.96	1.22	1.35	1.49	1.63	1.78	2.05	2.31	2.61	2.86
8	1.01	1.47	1.64	1.82	1.98	2.15	2.53	2.86	3.22	3.55
10	1.49	2.04	2.30	2.57	2.83	3.10	3.70	4.21	4.75	5.28
12	1.74	2.48	2.85	3.22	3.55	3.89	4.68	5.43	6.14	6.90
14	2.04	2.97	3.45	3.96	4.46	4.95	5.86	6.81	7.81	8.75
16	....	....	....	....	4.79	6.03	7.26	8.47	9.70	10.95

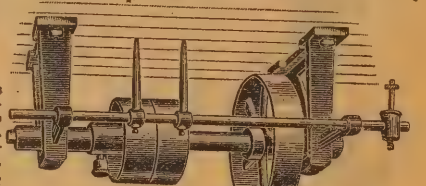
PREMIER SPECIAL SAW GUMMER-CORUNDUM WHEELS

These wheels are made especially for saw gumming purposes and are guaranteed not to burn or harden steel. They cut fast and leave the saw teeth free from burrs or rough edges.

When ordering be sure and state diameter, thickness of wheel and size of hole in center. 16-X-2659 Round Face; No. 16-X-2660 Bevel Face.

Diameter	Thickness, Inches ¼	⅜	½	¾
6 Inches	$0.95	$1.20	$1.30	$1.55
8 Inches	1.20	1.75	1.95	2.40
10 Inches	1.80	2.45	2.75	3.40
12 Inches	2.10	3.00	3.40	4.25

Counter Shafts



These Countershafts are of superior construction and guaranteed to be in perfect alignment. They are furnished complete with drive pulley, tight and loose pulleys, Langer's shifting rod and belt shifter.

No. 16-X-597. Size No. 1.
Size of Drive Pulley.....8x2 inches
Size of Tight and Loose Pulleys .....4x2 inches
Length of Shaft..... 18 inches
Drop of Hangers..... 6 inches
Diameter of Shaft..... ⅞ inch
Weight complete about..... 30 lbs.
Price $7.75
Will fit our No. 1 Bench Emery Grinder.

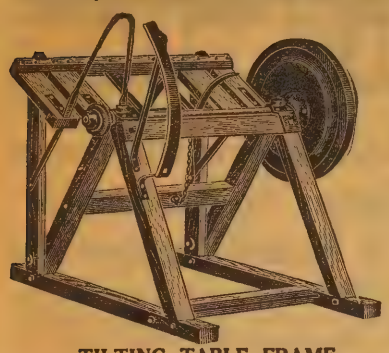
No. 16-X-598. Size No. 2.
Size of Drive Pulley.....9x2¼ inches
Size of Tight and Loose Pulleys .....4x2 inches
Length of Shaft..... 21 inches
Drop of Hanger..... 6 inches
Diameter of Shaft..... ⅞ inch
Weight complete about..... 45 lbs.
Price $10.00
Will fit our No. 2 Bench Emery Grinder.

No. 16-X-599. Size No. 3.
Size of Drive Pulley.....10x3½ inches
Size of Tight and Loose Pulley ..... 5x3 inches
Drop of Hanger..... 8 inches
Length of Shaft..... 24 inches
Diameter of Shaft..... 1 inch
Weight complete about..... 50 lbs.
Price $12.10
Will fit our No. 3 Bench Emery Grinders.

No. 16-X-600. Size No. 4.
Size of Drive Pulley.....12x4 inches
Size of Tight and Loose Pulley ..... 5x3 inches
Drop of Hanger..... 8 inches
Length of Shaft..... 26 inches
Diameter of Shaft..... 1⅛ inches
Weight complete about..... 60 lbs.
Price $15.95
Will fit our No. 4 Bench Emery Grinder.

See Our Big Belting Bargains!

BEST VALUES IN WOOD SAW FRAMES!



TILTING TABLE FRAME

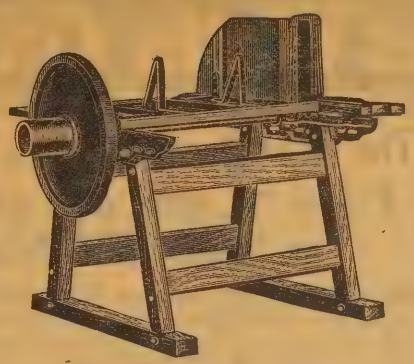
Perfectly adapted for sawing cordwood and short boards, etc. The piece to be sawed is put upon the tilting table and moved toward the saw, by slight pressure with the hand. The whole frame is so perfectly balanced that a child can work it. Right hand frame furnished, unless otherwise specified. The prices quoted are F. O. B. Cars factory, near Chicago. Weight 275 lbs. Shipped Knocked Down.

16-X-497. Frame complete, no saw.....$24.65
16-X-498. Frame complete, 20" saw..... 28.55
16-X-500. Frame complete, 24" saw..... 30.25
16-X-501. Frame complete, 28" saw..... 32.25

EXTENSION TILTING TABLE FRAME

We furnish the saw frame above with extension tilting table for long poles and logs.

Lot 16-X-491. Frame complete with 24" saw 31.70
Lot 16-X-492. Frame complete with 28" saw 33.75
16-X-493. Frame complete without saw.. 26.10



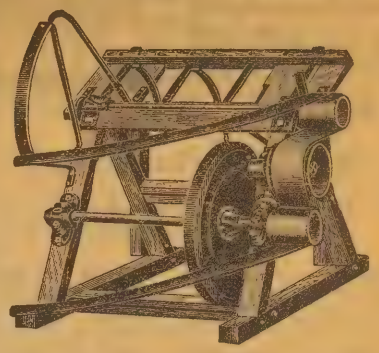
SLIDING TABLE FRAME

Table is mounted on roller bearing which runs on the table guides, and is very easy to operate.

The frame is made of hard wood, well braced and bolted, and is nicely finished. A very substantial and strong frame throughout. The Mandrel is 1½ inch diameter, turned to fit 1⅜ inch hole in saw. The pulley is 5 inch diameter and has 6 inch surface. Weight 300 lbs.

Right hand frame furnished unless otherwise specified. Prices quoted are F. O. B. cars factory, near Chicago. Shipped Knocked Down.

16-X-504. Complete without saw.....$29.10
16-X-505. Sliding Table Saw Frame, with 20-inch saw 33.00
16-X-507. Sliding Table Saw Frame, with 24-inch saw 34.70
16-X-509. Sliding Table Saw Frame, with 28-inch saw 36.75

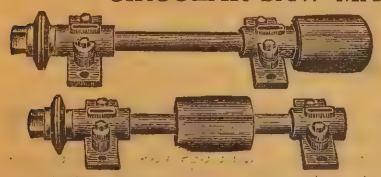


TILTING TABLE POLE SAW FRAME

This Tilting Table Saw Frame is high grade in every way. It is constructed of extra fine hardwood. Braced and bolted. Balance wheels on separate shaft, entirely out of the way so that long poles may be sawed, as well as cord wood. The power is fed direct to saw. The belt passes around the idler pulley to the shaft, giving speed and well balanced motion to the saw. Weight, 350 lbs. The prices quoted are F. O. B. factory, near Chicago.

16-X-511. Without saw $33.00
16-X-512. With 20" saw..... 36.95
16-X-514. With 24" saw..... 38.65
16-X-515. With 28" saw..... 40.65

CIRCULAR SAW MANDRELS



Included in this large purchase was a great quantity of Circular Saw Mandrels. Bearings are extra long and made of specially chilled iron and are well babbitted. The shaft is cold rolled steel.

Lot 16-X-530. Pulley in center, add 25c.
Lot 16-X-531. Pulley on right-hand side, with left-hand thread.

Size.	Diam. Pulley.	Face of Pulley.	Length Shaft.	Diam. Shaft.	Hole in Saw.	Price Each.
1	2½	3½	16	1 1/16	1	$ 6.55
2	3	4	19	1 3/16	1 1/8	7.40
3	3½	4½	21	1 5/16	1 1/4	10.65
4	4	5	24	1 7/16	1 5/16	12.50
5	4½	5½	26	1 7/16	1 5/16	14.70
6	5	6	28	1 7/16	1 3/8	15.55
7	5½	6½	30	1 7/16	1 3/8	16.20
8	6	7	32	1 9/16	1 1/2	19.45
9	7	8	37	1 11/16	1 1/2	22.70
10	8	8	41	1 13/16	1 5/8	25.90

SEPARATE PARTS

Build them Yourself. Here are the Parts, Mandrels, Balance Wheels Boxes, Pulleys.

We offer for the convenience of those who wish to build their own saw frames, the following parts:

16-X-2515. Mandrel, 1½ in. in diameter only. Turned down to fit 1⅜ inch hole in saw. Weight about 35 lbs. Length 49 ins.....$4.65

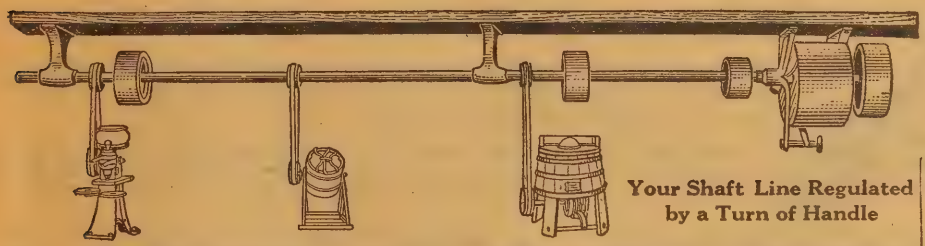
16-X-2517. Babbitted Bearing Boxes, connected. Weight about 35 lbs. Price per set.....$3.90

16-X-2519. Balance Wheel. Weight 95 lbs. Price.....$6.60
16-X-2521. Belt Pulley, 5 in. in diameter, 6-inch face. Weight 11 lbs. Price $1.50
16-X-2523. Consists of Mandrel shaft complete with balance wheel, boxes and belt pulley. Weight 170 lbs. Price.....$16.75

NOTE—When ordering pulley and balance wheel separately, unless otherwise stated, they will be furnished to fit 1½ inch shaft.

We can furnish in addition, parts and saw blades for any kind of an outfit you may want to rig up. Write us your needs, no matter how different and our expert engineering department will give you free plans and advice. Our stock includes every kind of wood-working machinery —standard and special.

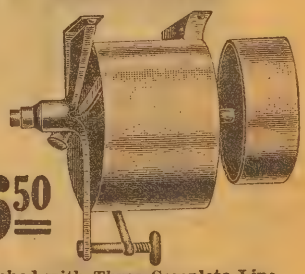
"NEW WAY" LINE SHAFT SPEED GOVERNOR



Your Shaft Line Regulated by a Turn of Handle

These splendid shaft line outfits are fitted with an efficient well made speed controller designed to regulate the speed of several pulleys at once without stopping your motor or gasoline engine; can be used with any engine up to 5 H. P.; you start, increase or decrease the speed of your machinery by turning the hand wheel on the controller. Once started, this engine may continue to run without the necessity of shutting it off when the machine you are operating requires attention. All pulleys are operated at one time. With one of these complete shaft line outfits, you can operate your cream separator, churn, washing machine or any other small machinery that you have without fear of damage in running it at a greater speed than the machine was built for. With one of these complete shaft lines fitted with this excellent speed governor, your machine is gradually brought up to speed and then kept running at just the right speed. All vibrations are taken up in the speed governor. These shaft line outfits are offered in three popular sizes and prices are very low. Can be used on the wall, ceiling or floor with the same results.

$16.50



Furnished with Three Complete Line Shaft Sizes

16-X-400. Speed governor only mounted on a 2-ft. wood base.....$16.50
16-X-401. Shaft line outfit including speed governor; 8 ft. of 1-in. line shaft, 1 4-in., 1 6-in. and 2 8-in. pulleys; 2 hangers. Mounted on 8 ft. wood base. Complete..... 23.25
16-X-402. Shaft line outfit complete with speed governor, 12 ft. of 1-in. line shaft, 1 4-in., 2 6-in. and 3 8-in. pulleys; 3 hangers. Mounted on 12-ft. wood base. Complete..... 29.75

Directions for operating and setting up sent with each outfit.

Sold ONLY By Us — Famous Watts Corn Shellers

A Few Reasons

Why You Too Should Own A WATTS—And NO OTHER

Because Watts Corn Shellers, in all sizes, are "The World's Best" machines; still you can buy them from us under most liberal terms, at big price reductions.

Because these shellers are the most simple machines of their kind ever built—about one-tenth the number of working parts as compared to other corn shellers—nothing to get out of order. No delays or waiting for repairs.

Because of their splendid construction and durability—no springs and nothing to wear out. Fewer bearings—less wearing parts.

Because they are the most economical corn shellers to operate. They give you greater capacity and require less power than any other corn sheller.

Because of their big capacity, they do your shelling in the least possible time and get all the corn.

Because they will shell corn in any condition. Irregular sizes, smallest to largest size ears—hard or soft—green or dry. Watts Shellers always shell perfectly and never crack the kernels.

Because any Watts Sheller gets all the corn on the cobs and will pay you a profit on the corn you have not been getting.

Because they have been manufactured and distributed for many years and have always proved themselves to be the best and most efficient corn shellers on the market.

Because there is a size to meet every requirement featuring finest workmanship, greatest durability, utmost efficiency, biggest capacity, least power and lowest prices.

The World's Best Corn Shellers Now Offered at Prices So Low and on Terms So Reasonable You Should Not Delay A Moment Longer

Even though you have no immediate use for a corn sheller, we urge you to buy now. All machines in stock at the present time ready for immediate shipment are made from material purchased by the Watts Manufacturing Company before the big price advances of the past year.

Corn growers in every section of the country are getting the full benefits of this great sale. Forever best corn shellers are used and you will find these Watts Machines the world's best strongly represented—the choice of men who know.

And remember, this great sale of ours not only offers these famous machines at big price reductions, but you can now buy your Watts Sheller under most liberal terms of payment, as fully outlined on the pages which follow.

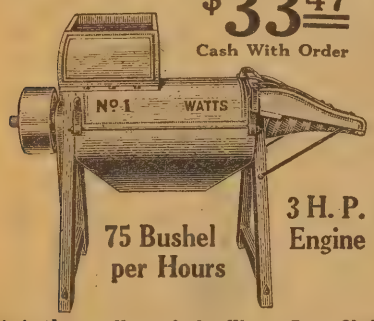
30 Days' Free Trial

Whether you send us cash in full with your order, deposit the money with your banker or buy your corn sheller on time in three payments, we want you to distinctly understand that your purchase is made under our liberal 30-day Free Trial. This will give you sufficient time to test and use the machine on your own work and convince yourself of the splendid purchase you have made.

Liberal Guarantee

We insist that you be satisfied in every way with your purchase of any Watts Corn Shelling Outfit before we will consider the transaction closed. If you do not find the corn sheller sent you to be exactly as pictured and described in the pages of this book—or if for any reason whatsoever you are not satisfied, your money, including all transportation charges, will be promptly returned without question or quibble.

$33.47
Cash With Order



This is the smallest of the Watts Corn Sheller line. All other sizes are fully described on the next few pages including Watts big capacity, double cylinder machine for custom work.

Watts No. 1 Corn Sheller

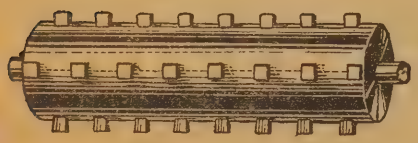
This sturdy little machine is just the size for the man wishing to shell only enough corn for his own needs. It has a capacity of 75 bushels an hour and can be operated to best advantage with a 3 H. P. engine.

The Ears Do the Shelling in Watts Shellers

A heavy cast iron cylinder, with lugs set in staggered rows, serves to keep the ears in motion. These lugs are set in spiral fashion so as to carry the cobs from one end of the shelling jacket to the other.

36-X-900. Watts No. 1 Sheller, capacity 50 to 75 bushels per hour, length 5 ft. 4 in., width 3 ft., height 3 ft. 9 in., speed 800 R. P. M., equipped with 8x4-inch drive pulley. Weight 180 lbs. **Price, cash after 30 days....** **$34.50**

An Important, Exclusive Feature of Watts Construction



The heavy cast iron cylinder, illustrated at the left, is what does the work in the Watts No. 1 and No. 4 Shellers. It is mounted on a heavy steel shaft running in babbitted bearings. The lugs serve to keep the ears in motion, and being set on the cylinder in spiral fashion, carrying the cobs from one end to the other. The Watts Sheller cleans the cob without cracking the kernels.

The No. 1 Watts Corn Sheller has proven to be very popular among stock feeders and farmers with small power. It shells the corn clean from the cob. When so desired, the bran and soft tips of the cobs can be removed with the corn. Many feeders are replacing their cob crushers with a Watts No. 1 Sheller. This machine will shell ears of any size, in any condition, if clean husked.

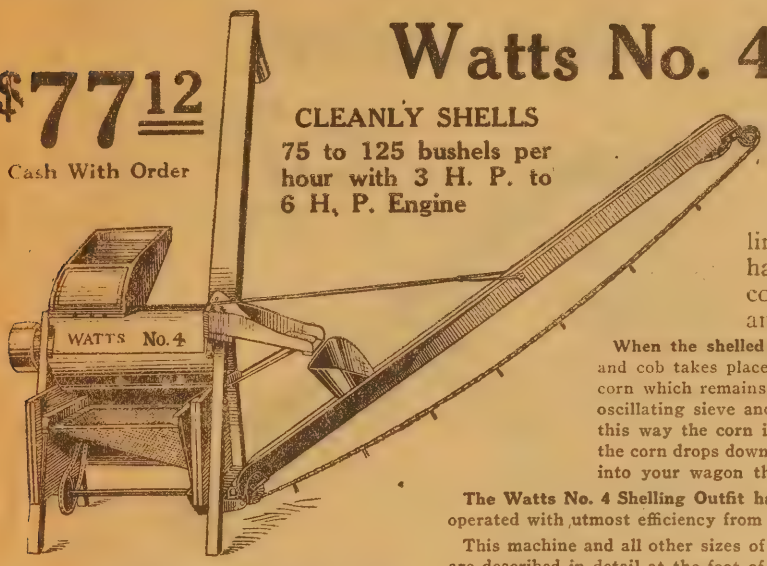
At Big Price Reductions!

Most Liberal Terms

Watts No. 4 Corn Sheller

$77.12
Cash With Order

CLEANLY SHELLS
75 to 125 bushels per hour with 3 H. P. to 6 H. P. Engine



To Take Care of Your Own Needs and Those of a Few Neighbors

This machine is constructed along the same lines as the Watts No. 1 Machine, except that it has a larger capacity and is equipped with a cob stacker and grain elevator. It shells, cleans and loads all the corn and stacks the cobs.

When the shelled corn leaves the shelling jacket, the separation of the corn and cob takes place instantly. The cobs are elevated by the cob stacker. Any corn which remains on the cobs after they leave the cylinder is removed by the oscillating sieve and drops down with the other corn on the cleaning sieve. In this way the corn is saved which is usually thrown out with the cobs. When the corn drops down through the sieve, it is spouted upward through the elevator into your wagon thoroughly cleaned by the cleaning fan.

The Watts No. 4 Shelling Outfit has a capacity of from 75 to 125 bushels per hour and can be operated with utmost efficiency from any engine developing from 3 H. P. to 6 H. P.

This machine and all other sizes of Watts Shellers are sold through either of three plans, which are described in detail at the foot of this page. And remember that, regardless of which plan of payment you choose, you are under no obligations to keep the machine if after 30 days you find that it does not do every bit as much as we claim for it.

The above illustration shows a Watts No. 4 Corn Sheller. It is 6 ft. long, 3 ft. wide, 4 ft. high. It is furnished complete with 9½ ft. corn elevator and 8 ft. cob stacker. Lagged drive pulley 8 in. diameter, 4 in. face, speed 800 R. P. M. Shipping weight, complete as illustrated, 440 lbs.

36-X-901. Watts No. 4 Corn Shelling Outfit, with cleaning system, cob stacker and grain elevator, complete; cash after 30 days..... **$79.50**

Watts No. 4 Corn Sheller

Complete With Automatic Feeder

This machine is identical with the one shown above, but in addition it is equipped with an automatic feeder.

An automatic feeder is a very valuable asset to a corn shelling outfit in that it keeps the shelling chamber filled to just the right capacity to insure the greatest output of shelled corn at all times. It saves labor, time and corn.

The Watts No. 4 Corn Sheller with automatic feeder is just the outfit for the man who wishes to do all of his own shelling and in addition do some shelling for his neighbors.

This outfit is backed by the same liberal guarantee and is sold under the same terms that have made all sizes of Watts Shellers so popular among corn feeders everywhere. The 30-day free trial offer also applies to this outfit.

The difference in sale prices on this machine complete with automatic feeder and the Watts No. 4 without the feeder is but a matter of a few dollars that will be quickly saved in time, labor and corn.

$96.52
Cash With Order

Capacity 75 to 125 Bushels Per Hour with 4 H. P. to 6 H. P. Engine

36-X-902. Watts No. 4 Corn Shelling Outfit, complete with an automatic feeder, cleaning system, cob stacker and grain elevator. Price, cash after 30 days..... **$99.50**

Cash With Order

Plan No. 1 By sending cash in full with your order, you will be allowed a discount of 3 per cent from the sale price mentioned at the end of the descriptive matter with each machine.

Cash After 30 Days

Plan No. 2 If you wish to examine and use the corn sheller for 30 days, send us a letter from your banker stating that the full sale price has been deposited with him, and will be sent to us when you are fully satisfied.

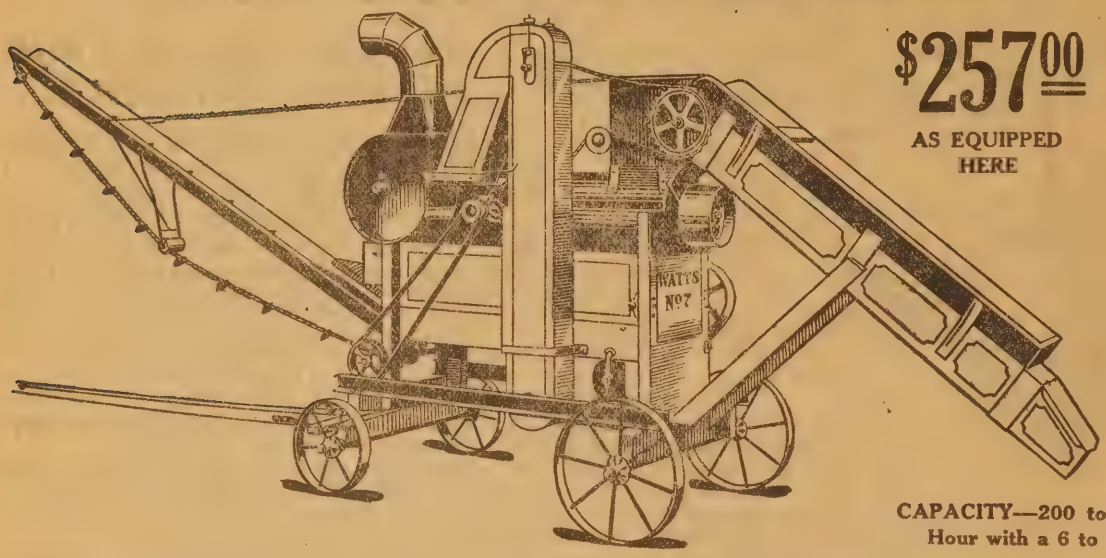
On Time--3 Payments

Plan No. 3 An extra charge of $2.50, on either the No. 1 or No. 4 machines is necessary under this plan. Send one-third of the amount with your order and blanks will be sent for your signature for balance to be paid one-third in two months and one-third in four months.

30 Days FREE Trial

The Best Corn Shellers Made!

Watts No. 7 Corn Sheller



$257.00

AS EQUIPPED HERE

CAPACITY—200 to 250 Bushels Per Hour with a 6 to 8 H. P. Engine

The Watts No. 7 Corn Sheller is an excellent investment for you if you wish to do contract shelling. This machine will shell your corn quickly in or out of the husk.

The corn passes thru three separate cleaner sieves in the machine. The Watts No. 7 is also equipped with a husk and dust fan, the outlet of which is operated on a swivel point, permitting the operator to blow the husk and dust in any desired direction.

Watts No. 7 Corn Sheller with Standard Equipment

Watts No. 7 Corn Sheller with cob stacker, sacking elevator, type "R" feeder, mounted on steel trucks. Price..... **$265.00**

36-X-903—Watts No. 7 Corn Sheller with wagon box, grain elevator cob stacker, type "R" feeder, mounted on steel trucks. Price..... **$266.00**

General Specifications

Capacity, bu., per hour: Clean husked, 200 to 250; corn in shuck, 50 to 75.
Engine Power: 8 to 10 H. P.
Speed: 800 to 1,100 R. P. M.
Weight, mounted with standard equipment: 1,400 lbs.
Weight of swivel extension: 300 lbs.
Height to top of hopper, mounted: 6 ft. 9 in.
Length of sheller only: 6 ft. 3 in.
Width of sheller only: 2 ft. 7 in.
Size of drive pulley: 8 in. by 6 in.

Additional Equipment

"R" Type Feeder 7 ft. long, separate track chains used, with individual tighteners, securing equal tension at all times. No chance for clog in hopper, no matter how fast you feed, or of feeder buckets catching and breaking chain. Price.....**$22.50**

"S" Type Feeder, 10 ft. long, double chain, with straight bucket. Price..**$30.00**

Sacking Elevator, 4 ft. long. Price.....**$21.00**

Wagon Box Elevator, 9 ft. with swivel elbow, allowing change without stopping. Price **$22.00**

Cob Stacker—Straightaway, 12 ft. long. Price.....**$19.00**

Swivel Extension Feeder, 12 ft. long, single chain, with straight bucket. Price **$35.00**

Horse Hitch Team Truck 16x22-inch wheels, 2½x⅝-inch tires, quick detachable tongue, 48-inch thread. Price.....**$35.00**

36-X-904. **Watts No. 7 Corn Sheller** with cleaning system and check fan, only **$167.50**

NOTE—When swivel extension feeder is required, the "S" type of feeder must be used.

Vital Parts of the Watts No. 7 Corn Sheller

Two important features of Watts splendid construction are shown above. The picker wheel is continually revolving directly in front of the cob outlet. This prevents any possibility of wet husk hanging to the cob throat. It requires no adjustment and need not be removed when shelling clean husked corn. The other illustration shows the cylinder used in this sheller. Note the lugs in staggered rows and the adjustable feed wings.

Get Your Copy of Our Free Complete Furniture Book

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Under Most Liberal Terms!

Big Reduced Prices

Watts No. 8 Double Cylinder Corn Sheller

$446.20

Equipped with Wagon Box, Elevator, Swivel Cob Stacker, Feeder, 14 ft. Swivel Extension Feeder and 10 ft. Intermediate Section

Here is a machine that has established an enviable record and lasting reputation among extensive corn growers who shell their own crops and do large custom work. It is an ideal machine on the road, in the elevator or mill. Built for winter custom work because it is easily transported from one job to another over bad roads.

The same construction plan of simplicity, durability and utmost capacity from least power found in the smaller size Watts Shellers has been carefully followed in this big capacity custom machine. The double cylinder arrangement operates on the same excellent principle as featured in the other sizes.

In the No. 8 Sheller, two shelling cylinders are used instead ofone. These cylinders are enclosed in separate shelling chambers and revolve in opposite directions. All the ears can run through both cylinders. As each ear must pass through both shelling jackets, it is stripped clean before reaching the cob outlet. It isnot necessary to hold back the cobs with a gate to insure a clean job, except when shelling extremely wet tough corn. This takes less power as the cob opening can be made nearly as large as the hopper opening.

The double cylinder method also insures a better job of cleaning than can possibly be obtained with a one cylinder sheller of light capacity, for the reason the shelled corn falls through the entire length of both shelling jackets in a scattered condition onto a cleaning shoe, instead of being carried to one side or end and poured in one large stream onto a sieve. The fact that Watts Shellers do the work with a large cob outlet insures less breakage of cobs than with a single cylinder machine.

The corn passes thru three separate cleaner sieves in this machine. The Watts No. 8 is also equipped with a husk and dust fan, the outlet of which is operated on a swivel point, permitting the operator to blow the husk and dust in any desired direction. A husk sack is also furnished with the regular equipment.

36-X-905—Watts No. 8 Custom Corn Sheller, equipped with wagon box elevator, swivel cob stacker and feeder, mounted on steel trucks. Price..... **$390.00**

General Specifications

Capacity—Bu. per hour in husked corn	600 to 800
Power, gasoline or kerosene	12 to 15 H. P.
Speed	800 to 900 R. P. M.
Size of Drive Pulley	10 x 6 in.
Weight mounted	3,000 lbs.
Height to top of Hopper, mounted	7 ft. 6 in.
Height to top of Hopper, without Trucks	5 ft. 9½ in.
Width	34½ in.
Length (not including Feeder and Stacker)	7 ft. 10 in.
Length, mounted (not including Feeder and Stacker)	9 ft. 3½ in.

Wagon Box Elevator—Nine feet high, equipped with swivel elbow, permitting the changing from one wagon to another without stopping the Sheller. The elevator swings from the center. One bolt removed from the bottom and the elevator swings to a horizontal position.

Straight-Away Feeder—Twelve feet long, hinged at top and equipped with windlass. Double strand chain, straight bucket type.

Swivel Cob Stacker—Fourteen feet in length; can be swung to any desired angle while Sheller is in operation. Also equipped with windlass for raising and lowering while machine is running.

Steel Team Truck—24 by 34-inch wheel, 3x3⅛-inch tires, 54-inch tread. Everything is steel but the tongue.

Additional Equipment

14 Ft. Swivel Extension Feeder..... **$45.00** **10 Ft. Intermediate Section**..... **$25.00**

Cash With Order

Plan No. 1 By sending cash in full with your order, you will be allowed a discount of 3% from the sale price mentioned at the end of the descriptive matter with each machine.

Cash After 30 Days

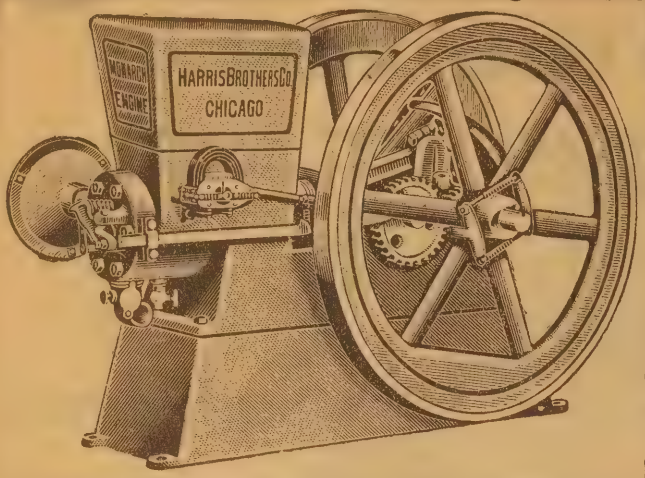
Plan No. 2 If you wish to examine and use the Corn Sheller for 30 days, send us a letter from your banker, stating that the full sale price has been deposited with him and will be sent to us when you are fully satisfied.

On Time—3 Payments

Plan No. 3 An extra charge of $5.00 on either the No. 7 or No. 8 machine is necessary under this plan. Send us one-third of the amount with your order, and blanks will be sent for your signature for the balance, to be paid one-third in two months and one-third in four months.

Reliable Monarch Engines

BUILT for GASOLINE or KEROSENE



MONARCH GASOLINE ENGINE ON CAST SUB BASE

Gasoline Engines

1¾ to 6 h. p. **$49.50** and Upwards

They Embody All Latest and Best Improvements

Monarch Engines are Simple in design and trouble-proof

Throttle Governor insures smooth operation

Easily starting made certain by vaporizing fuel

Speed regulator adjustable while engine is running

Water spray valve for vaporizing fuel

Fuel economy: One-tenth gallon fuel per h.p. hour

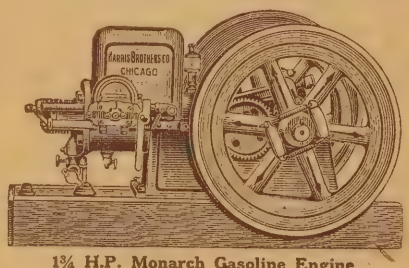
Conservative ratings develop 20 per cent over ratings shown

These Celebrated Engines

—now built for Harris Brothers Co.

THE builders of these high grade engines, like many other leading manufacturers, were willing to make the necessary price concessions in order that we might use our wonderful sales organization to acquaint thousands of engine users throughout the country with the one real successful gasoline or kerosene engine. Although they have been continually built and distributed for many years, this is positively the first time in their entire history that they have sold direct to the consumer at a price reduction. In every way we have investigated by actual test and convinced ourselves that Monarch Engines are the world's best before we were ready to distribute them. Read the conditions of our liberal terms, our free trial and guarantee forever —the greatest engine offer ever made.

Monarch Engines are all made complete by one of America's best equipped engine builders. The improved construction embodies all newest and best features with many additional exclusive points of merit. Always sure starting and st eady running under any and all conditions. They are constructed throughout of finest material beautifully finished in red enamel artistically stripped. Some of the main important features are the detachable cylinder head, perfect poppet valves, malleable iron "I" beam connecting rod, Webster oscillating magneto on all sizes. Note the additional features mentioned at the side of these pages.



1¾ H.P. Monarch Gasoline Engine

This Monarch Gasoline Engine is the ideal power for operating a small line shaft connected with your Cream Separator, Grist Mill, Fan Mill, Washing Machine, Grindstone or any other small farm machinery. It gives you full rated power at all times at lowest possible fuel expense. Although this is the smallest of the Monarch Engines, all splendid features are embodied in its construction. Monarch Gasoline Engine, size 1¾ h.p. (full explanation on opposite page). 36-X-120. Sale Price **$49.50**

LIBERAL TERMS!

Time to Pay if You Wish!

You can buy your Monarch Engine in any size under most liberal terms; three ways to pay, as follows:

Plan No. 1 **By sending cash in full with order you will** be allowed a discount of 3% from these prices.

Plan No. 2 **If you wish to examine and use the engine** for thirty days, send us a letter from your banker stating that the full sale price has been deposited with him and will be sent to us when you are fully satisfied.

Plan No. 3 **If you wish to buy your engine on time—in** three payments—an extra charge of $2.50 will be necessary to cover our bookkeeping expense. Send one-third of the amount with your order and blanks will be sent for your signature for the balance to be paid one-third in two months and one-third in four months.

Repair Parts Can Always Be Supplied

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago

Solve Your Power Problems!

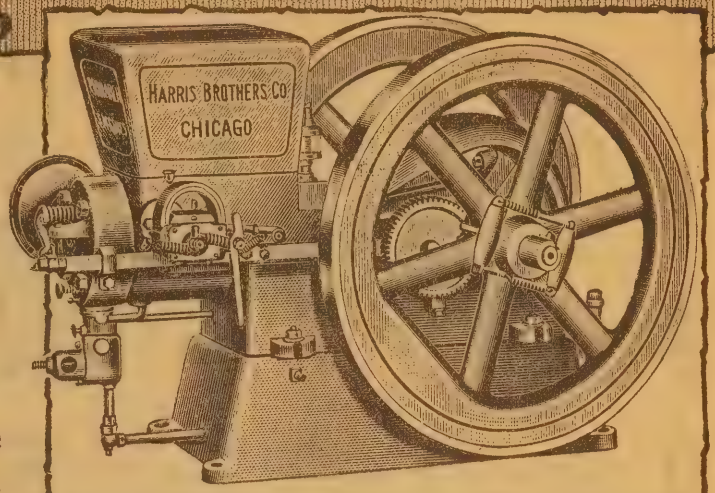
WEBSTER OSCILLATING MAGNETO

Kerosene Engines

3 h. p. to 10 h. p. **$96.00** and Upwards

Throttling Governor-Webster Magneto-Kerosene Carburetor

Sure Easy Starting—The Ideal Engine for the Farm

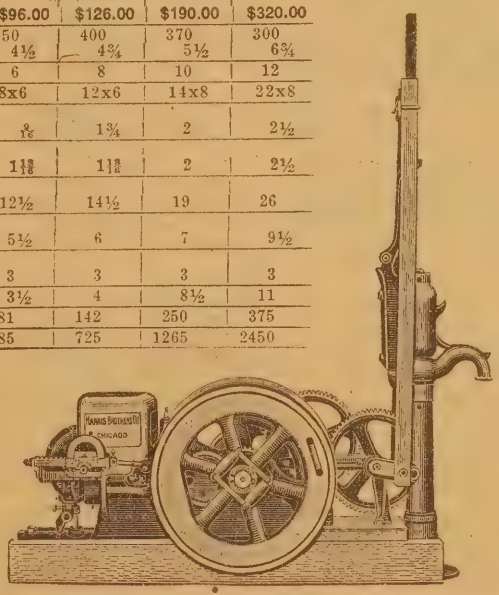


MONARCH KEROSINE ENGINE ON CAST SUB BASE

SPECIFICATIONS AND SALE PRICES

ORDER NUMBER	GASOLINE ENGINES 36X120	36X121	36X122	36X123	KEROSENE ENGINES 36X320	36X321	36X322	36X323
Size, H.P.	1¾	2½	4½	6	3	5	7	10
Price on skids	$49.50	$83.00	$110.00	$170.00	ON CAST SUB BASE ONLY			
Price on cast Sub base	.....	87.00	117.00	180.00	$96.00	$126.00	$190.00	$320.00
Speed, R.P.M.	500	400	350	325	450	400	370	300
Bore, inches	3½	4½	4¾	5½	4½	4¾	5½	6¾
Stroke, inches	5	6	8	10	6	8	10	12
Pulley, inches	4x4	8x6	12x6	14x8	8x6	12x6	14x8	22x8
Dia. Crank Pin, inches	1¼	1 9/16	1¾	2	9/16	1¾	2	2½
Length Crank Pin, inches	1 9/16	1 13/16	1 13/16	2	1 13/16	1 13/16	2	2½
Length Connecting Rod, in.	10⅛	12½	14½	19	12½	14½	19	26
Length Piston, inches	4	5½	6	7	5½	6	7	9½
No. of Piston Rings	3	3	3	3	3	3	3	3
Fuel Tank, gals.	1	2½	2½	7½	3½	4	8½	11
W'ght Flywheel,	34	81	142	250	81	142	250	375
Shipp'g Weight,	225	475	715	1250	485	725	1265	2450

Monarch Pumping Outfits



Pump and Pump Standards Not Supplied

Includes regular Monarch Engine and geared pumping jack, mounted on wood skids. Jack is arranged for direct connection to pump standard; no belts. By taking out four lag screws the pumping jack can be removed and the engine run independently.

36-X-329. Monarch direct connected pumping outfit with 1¾ h.p. engine and single gear pump jack, height 20 in., 3¾ in. bore, 5 in. stroke, 18 in. flywheel, 5x5 in. pulley, wt. 360 lbs. **Price** **$67.50**

36-X-330. Monarch direct connected pumping outfit with 2½ h.p. engine and double gear pump jack, height 22 in., 4½ in. bore, 6 in. stroke, 21 in. flywheel, 10x6 in. pulley, wt. 550 lbs. **Price** **$105.00**

Kerosene carburetor designed for cheapest fuel

Cooling hopper of special design prevents cracking from frost

Modern design embodying all good points

Drop forge crank shaft

Thick walled cylinder permits boring three times

Ignition Webster's oscillating magneto on all sizes

FREE TRIAL!
Guaranteed Forever!

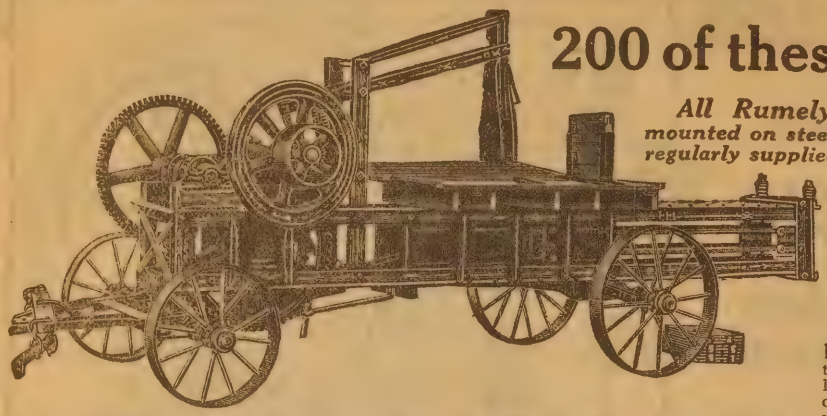
Whether you pay cash in full for your Monarch Engine or buy it under the conditions of our three payment plan, we will gladly send it to you on trial—our sole object being to satisfy you with your purchase.

We insist that you be satisfied in every way with your Monarch Engine before we will consider the transaction closed. If you do not find the engine we send you to be exactly as pictured and described in these pages, or if for any reason whatsoever you are not satisfied, your money, including all transportation charges, will be returned without any question or quibble. Monarch Engines in all sizes as described on these pages are guaranteed by us to give you the satisfaction you have a right to expect, and if at any future time you find your engine to be defective in material or workmanship, we will cheerfully send you repair parts to place your engine in perfect condition—replace the engine with a new one or hand you back any amount of money you have paid us.

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

See Our Hardware Bargains in this Book

Rumely-Robinson Hay Baler



200 of these Balers for Sale

All Rumely-Robinson Baling Presses are mounted on steel trucks. Wheels with 4 inch face are regularly supplied; axles are 2½ inches solid steel, with long wear-proof spindles. A tongue is furnished for team or engine use.

These are furnished in two different sizes, and the prices and specifications are as follows:—

THEY are absolutely the best Balers on the market. They come in four sizes—are strong, efficient, light running, of big capacity, and make neat bales that hold their shape.

The angle-iron frame is heavily braced, supported and riveted throughout. All gears are made of semi-steel, and designed to give speed and strength. The foot feed and arm are adjustable. The plunger is driven by heavy gear wheels that can be turned 180 degrees to present a new working face in case of wear. The plunger box is made of selected hardwood with a cast iron face. The baling chamber is strong. It is made of steel and there is no chance for it to spread. The tying chamber is long and convenient for the tier to work.

Every machine has a large feed opening, which makes rapid feeding and big capacity possible. The Rumely Baler is simple, strong, and of high quality throughout.

The Frame

The Rumely-Robinson Baler frame is built for strength. Heavy steel angle-irons extend from end to end. They are stayed and reinforced by solid plates that carry the twin gears in front, and also by the plates on the sides of the baling chamber. There are also several heavy steel standards on the sides. The top and bottom of the frame are strengthened by steel angles, and by the large steel plates that nearly cover the whole rear half of the frame. All parts are closely and heavily riveted together. The front of the frame is diagonally tied by heavy steel bars. Wooden pieces are interposed between the heavy cast iron main shaft boxes and the steel frame to absorb vibration and prevent loosening of bolts. The entire frame is built substantially throughout.

The Gearing

The shafting is extra heavy, with long babbitted boxes held in a continuous iron bed on each side, maintaining alignment of both shafting and gearing. The power is applied to the pulley bolted to the side of the heavy balance wheel. On the other end of the same shaft is a heavy double shrouded single gear, built to carry all the strain that is intended to be borne by two gears on some machines. On the same heavy shaft with the side gear are two double shrouded pinions, shrunk and keyed to the shaft. The power is transmitted from these pinions to separate twin gear wheels. Each one of the twin gears is mounted loosely upon a projecting stud from heavy side plates on the frame. An opening on the side of the plate and an oil hole in the inner side of the stud makes it possible to place oil or oiled waste in the opening and thereby insure proper lubrication.

The Plunger Head

The plunger head is of the box pattern, and has a heavy cast-iron face. The sides are of seasoned hardwood and are thoroughly braced with steel bars. This holds the head perfectly square against the uneven pressure which is always found in ordinary work.

The Pitman

The pitman is made of long heavy double-trussed steel pieces, with a casting on each end. Heavy pins connect these castings with twin gears on one end, and the plunger head on the other. The pins can be changed easily if they show effects of wear.

Feed Opening

The Rumely-Robinson Baler has a large feed opening. By this we mean, not the outer dimensions of the hopper, but the smallest opening through which the hay must pass in being put into the chamber. This large opening makes the Rumely Baler a big-capacity machine. It also keeps the hay from being broken up.

Junior Balers

These Balers are especially handy for barn baling, light for easy transportation, and of big capacity, making bales up to 100 lbs. with the 16x18. They are well adapted to custom work when weight of bales desired is within their capacity.

HAND FEED.

Lot No. 36-X-1218. Size, 16x18, wgt., 3790 lbs. Price each..... $225.00

Standard Sizes

These Standard Sizes are designed especially for heavy custom work, and for farms where a great amount of baling is to be done. They are strong and of big capacity. We quote them with hand feed, as follows:

Lot No. 36-X-1220. Size, 17x22, wgt., 5210 lbs. Price each..... $275.00

SIZE OF ENGINE REQUIRED:

Four and one-half H. P. engine will operate either Junior Baler with good results, but to get full capacity, a 6 H. P. engine is required. An 8 H. P. engine will operate either of the Standard Presses when feeding is not used; when feeder is used, to get the best results, a 10 or 12 H. P. engine is needed.

Strongly Constructed for Use With Tractors

Rumely-Robinson Hay Balers are strong and durable. No tractor is too powerful to use with them. They are light running and have large capacity, even when operated with small gas engines.

Self Feeders

All presses are furnished with hand feed. We can, however, furnish them with the Rumely-Robinson Self Feeder, and this attachment will prove a most profitable investment, as it greatly increases the capacity, and eliminates the feeding table, and the work of one man. The material to be baled is pitched directly on the carrier. This carries it up to the feeder, where it is put into shape for entering the hopper by means of a picker roller.

These self-feeders are specially designed and patented. It works on the principle of pitchforks—the natural and most efficient method, and does not break up the hay or straw.

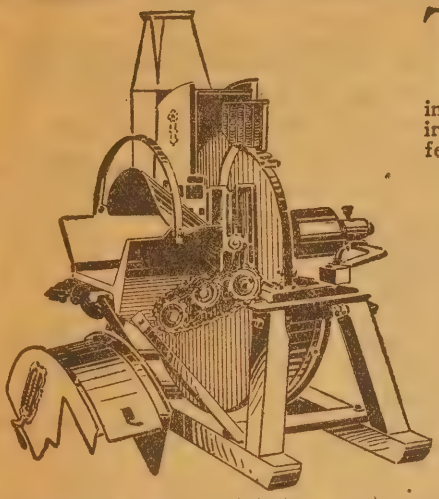
We do not recommend self-feeders for barn work, as it takes up too much room.

Lot No. 36-X-1222. Price for Self-Feeder $75.00

We have Hay Balers stored in various Warehouses throughout the United States. We are prepared to ship from a warehouse near you. This will mean a big saving in freight charges. Write us and we will quote you a freight prepaid price on the Balers you are interested in.

REPAIR PARTS CAN ALWAYS BE OBTAINED

Rumely Advance Ensilage Cutter



The above cut shows the simplicity of the Rumely Advance Ensilage Cutter and gives an idea of the accessibility of all parts when the cover is removed. Note the sure-acting safety device and the provisions for a strong, solid machine throughout.

THE Big Complete Silage Cutter, all mounted complete on Steel Horse Trucks. Rumely Advance Silage Cutter is equipped with dependable sure-acting safety device. Can be fed from either side without any change whatever. The starting, stopping and reversing of the carrier can be done from one side or the other with equal ease. An iron yoke is placed directly over the hopper, extending from one side of the feed opening to the other. One end of this is connected with a clutch collar and bevel gear arrangement in such a manner that it can be used as a lever to start, stop, or reverse both the chain carrier and the feed rolls. The Advanced Safety Cutter is equipped with one of the best sure-acting Safety Devices; in fact, is the pioneer machine of its kind to be so equipped.

There are four cutter knives used in the Advance Silage Cutter. These are straight, efficient and strong. The chain carrier conveys the material that is to be cut into the feed rolls. It is made of hardwood slats, placed close together, so that no litter can drop between them. The slats are firmly riveted to a double sprocket chain.

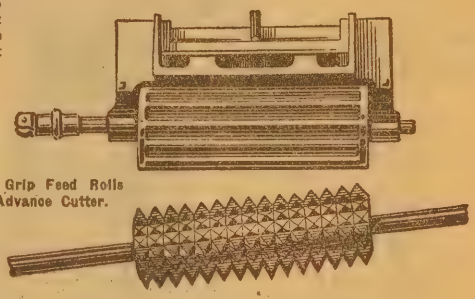
The lower half of the drum case is made of heavy steel, being securely riveted, it adds strength in itself and gives support to the cross pieces. This heavy drum wears longer and being almost impossible to penetrate, it serves as a protection, if any foreign article gets into the machine.

The delivery pipe is made of No. 22 galvanized steel, 8 inches in diameter.

On each end of each section, a malleable iron ring is fixed. Each ring has eight holes. Only four of these are used at a time for bolting the sections together—the other four are provided, so that the pipe can be twisted around, as desired, to turn the distributor in any direction.

The delivery pipe is made light, so that it can be put up readily. It is made strong, so that it cannot easily be bent out of shape nor worn by the friction of the silage.

The delivery pipe used with the Advance Silage Cutter is not only smooth inside, to reduce friction; it is also made practically air tight, so that none of the force of the blast is lost on the way—it is all used to carry the silage to the top of the silo. The top of the distributor hood is reinforced by a steel sheet, where the silage strikes it with greatest force in being deflected. This sheet resists the great wear at this point.



The Sure Grip Feed Rolls of the Advance Cutter.

Specifications are as follows:

Height of Cutter	inches
Height of Feeding Table	46 inches
Width of Throat	15 inches
Capacity of Throat in sq. inches	90 inches

FAN CASE OR DRUM DIMENSIONS

Diameter inside	46 inches
Width inside	9½ inches
Clearance between fan and case	½ inch
Gauge steel used for rim	No. 10
For sides	No. 12

FRAME

Size of angle iron	3½x3½x⅝ inches
Size of wood sills	4x3¼ inches

DELIVERY PIPE

Diameter	8 inches
Made of steel gauge galvanized iron	No. 22

KNIFE DISC

Weight complete	375 lbs.
Diameter	34 inches
Thickness	1¼ inches
R. P. M.	600 to 900

KNIVES

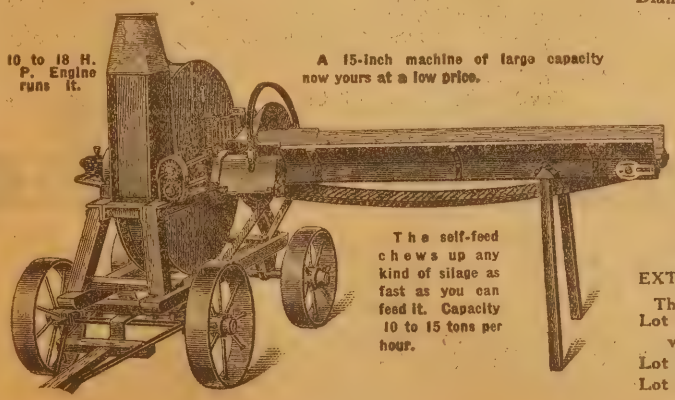
Number furnished	4
Width	3¾ inches
Length	18¼ inches
Thickness	⅝ inch

DIMENSIONS OF TRUCK

Diameter of wheels	22 inches
Width	3 inches
Length of hub	6 inches
Width of wheel track	57 inches

Equipment includes:—
Distributor hood for top of delivery pipe.
Feeding platform 30 inches wide and 6 ft. long, and Galvanized delivery pipe, as follows:
2—8 ft. sections
1—6 ft. section
1—4 ft. section
1—2 ft. section of 8-inch, 22 gauge galvanized pipe.

Price complete as above.
Lot 36-X-1223 ..... **$175.00**



10 to 18 H. P. Engine runs it.

A 15-inch machine of large capacity now yours at a low price.

The self-feed chews up any kind of silage as fast as you can feed it. Capacity 10 to 15 tons per hour.

EXTRA EQUIPMENT

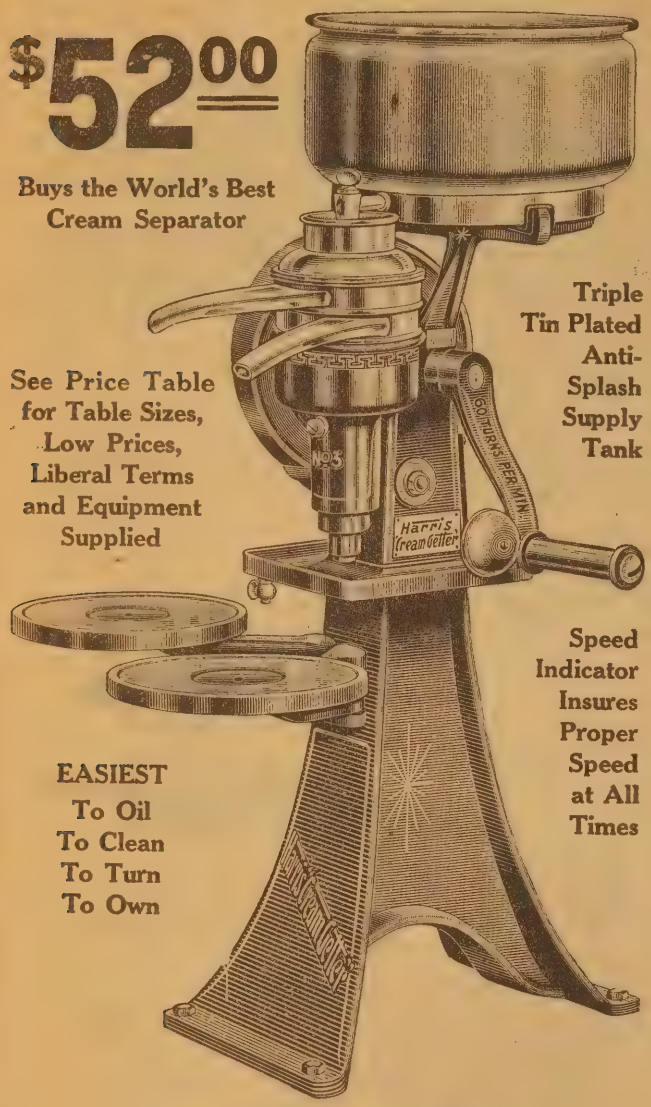
The following extras will be furnished at the prices noted:

Lot No. 36-X-208. Hopper for end of distributor, when distributor section is used	$2.50
Lot No. 36-X-209. Inside distributor section, 30 inches long.	1.00
Lot No. 36-X-210. Extra blower pipe, per foot	.50

The World's Best Cream Separator
With All Latest Improvements!

$52.00

Buys the World's Best Cream Separator



Triple Tin Plated Anti-Splash Supply Tank

See Price Table for Table Sizes, Low Prices, Liberal Terms and Equipment Supplied

Speed Indicator Insures Proper Speed at All Times

EASIEST
To Oil
To Clean
To Turn
To Own

Harris Cream Getter No. 3
Capacity 375 lbs. Per Hour

"Harris Cream Getter"

The Cream Separator With— A Record of 100% Satisfaction

Never has a "Cream Getter" been returned for any reason. Everyone has been shipped subject to return if the purchaser was not fully satisfied. Read our trial offer and guarantee and see how each buyer is fully protected. If after trial for a while you should find that your Cream Getter is not the best Cream Separator obtainable from your view point you can have back all your money including freight charges. While none have been returned up to this time you may be the first to return one if you buy it and do not find it the best. The Cream Getter is made by expert Cream Separator Builders in the finest, most complete and best equipped factory in the world. It is built of the very finest metals obtainable and has patented improvements, not found in other makes or Separators.

It gets the Cream and is built to stand the "Gaff" of continued daily use.

Only One Tool Required!!!

The daily handling of the Separator is most simple and easily understood. Only one tool is required which is the spanner part of the combination wrench—for screwing and unscrewing the bowl nut.

Exclusive Patented Improvements

The most important patented exclusive improvement that makes the Harris Cream Getter superior to all others is the patented Equal Milk Distributor. This is a simple little sleeve placed in the very heart of the machine. It distributes equal quantities of whole milk simultaneously to all skimming spaces, insuring quick, clean skimming.

Other patented improvements are the safety clutch, neck bearing spring, and speed indicator. It has also straight faced worm gear, ground shafts, and pinions finest bronze and high speed metal bearings and the positive automatic oil splash system.

It is equipped with an anti-splash supply tank and metal bushed handle. All parts which come in contact with the milk are triple tin plated.

The frame casting is smoothly ground and heavily finished with hard, glossy navy blue enamel, baked on, artistically striped with red and gold.

With our extremely low prices and liberal terms of payment, you cannot afford to be without the Harris "Cream Getter" another day.

Save every ounce of Cream while the market price of butter fat is higher than ever before.

Unlimited Guarantee!

We Guarantee that the Harris "Cream Getter" Separator which we send you will meet your highest expectations in quality, appearance, service, satisfaction and money saved. It will skim so perfectly, and prove so thoroughly satisfactory that you would not part with it for double the low price you paid. That each part is made of the finest material and by the best methods known. We guarantee to replace any part which proves defective at any future time. That we will hand you back your money, including freight, if you decide to return the separator at the end of the trial period. The conditions of this guarantee are unlimited and will be fulfilled by us at any time.

HARRIS BROTHERS CO.

Most Liberal Trial

Regardless of whether you send cash in full with order or buy your machine on easy time payments, your Harris Cream Getter will be sent you subject to trial for any reasonable time.

This most liberal of all Trial Offers must convince you, beyond all question of doubt, that any Harris Cream Getter Cream Separator is all that we claim for it. This will further prove to you that these machines are not merely built to do the work for a limited time of a short trial period, but will give you the service and satisfaction you have a right to expect in many years to come.

See The Low Prices on Next Pages.

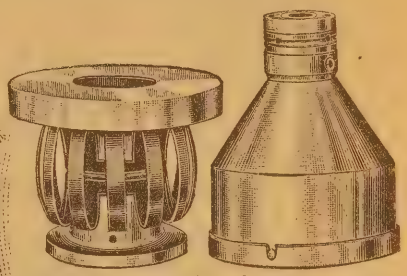
-and the Greatest Offers Ever Made!

Exclusive Patented Features Everywhere!

The discs and distributing sleeve are handled as one single piece. By lifting the discs and sleeve from the bowl, every surface coming in contact with the milk is fully exposed and easily cleaned.

The above illustration shows the method of inserting the patented equal milk distributing sleeve in the discs. It is simply slipped into place so that all discs can be handled as a single unit.

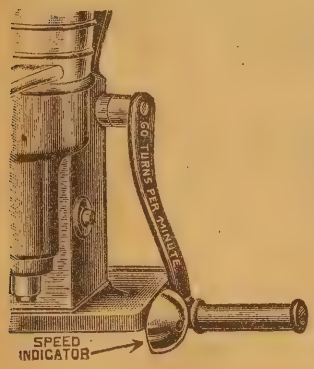
These Two Parts of the Harris "Cream Getter" Machines Are Carefully Made and Far in Advance of Any Other Construction.



After the machine is started, this Patented Elliptical Neck Bearing Spring automatically regulates the bowl to rotate on a positive center. It allows the bowl freedom of motion without wear to any surface.

Detachable Sanitary Bowl Easily Lifted Off of the Spindle for Washing. The inside of the bowl is as easily cleaned as the inside of a tea-cup, being covered with three coats of tin and smoothly finished.

Alarm Bell Speed Indicator



It is important and very convenient to know when your machine is running at just the right speed to get maximum results from your Cream Separator. This simple speed indicator bell attached to the handle of all "Harris Cream Getter" Separators will promptly remind the operator when the machine is not running at the correct speed. This attachment, like all other important improvements, is exclusive with "Harris Cream Getter" Machines.

The Exclusive Patented Equal Milk Distributor

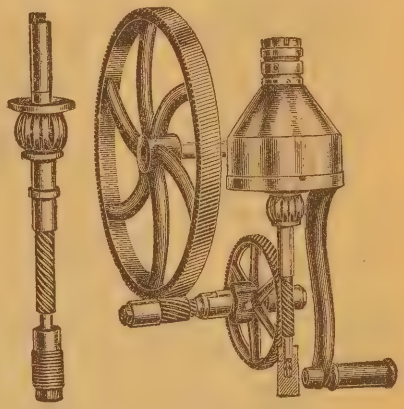
An ingenious device that sets the Harris Cream Getter apart from all other separators on the market today. It is placed in the "heart" of the machine and distributes the whole milk to all parts of the bowl, serving all discs equally and efficiently. The same capacity is now maintained with one-fourth less discs than are used in old style bowls. It prevents the loss of cream and does the work more quickly and easily and insures clean skimming.

The right hand portion of the above cut is a phantom view of the bowl and illustrates importance of the Exclusive Patented Equal Milk Distributor.

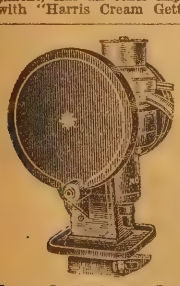
Noiseless Safety Clutch

Prevents any possibility of injury to the gearing; positive and automatic in action. Made of finest steel, unbreakable and perfect in operation. Illustration shows the clutch disengaged as when the driving gear is stopped and the bowl continues to spin without further work from the operator.

The Improved Gearing in the "Cream Getter"

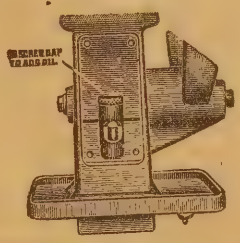


Showing the simple perfected gearing and clutch. The large and small gears are straight faced, meshing with spiral cut teeth on shaft and spindle—noiseless and enduring. Finest case hardened tool steel and phosphor bronze are used. The bronze worm gear can be adjusted to several different positions, shifting it across the teeth of the bowl spindle to give several new wearing surfaces on the same bronze gear after years of use.



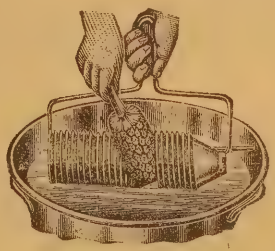
Enclosed Safety Gear

The large Gear is completely enclosed, eliminating accidents and preventing dust and dirt from getting into the gearing. **The Oil Drip Shelf with Drain Faucet** prevents oil or spilled milk dripping on floor.



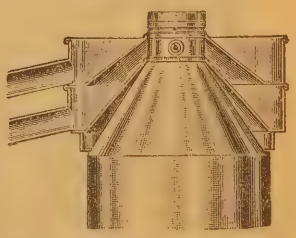
Glass Oil Gauge

No dirt-clogged oil holes to deal with. All parts are perfectly lubricated, receiving a steady, economical supply of oil from the centrally located oil supply. Note the glass oil gauge which indicates the oil supply at all times.



Easily Cleaned

A convenient non-rusting disc holder is sent with all machines. This holder allows the discs to come apart and makes it easy to get between them for thorough cleaning.



Cross Section

Here is a cross section of the cream and milk spouts as they are placed above the bowl. A feature of Harris Cream Getter Separators is found in the triple tin plated parts.

The Easiest Cream Separator to Own!

Most Liberal Terms and Low Prices!!

Plan No. 1

THREE PAYMENTS—⅓ with your order and balance in two long-time payments.

Send us one-third of the price with your order, the balance to be paid in two equal payments—⅓ in 2 months; balance in 4 months. Under this plan we are forced to make a slight additional charge of $2.50 for exchange and bookkeeping.

Plan No. 2

Purchase price to be deposited with your banker for 30 days.

Send with your order a letter from your banker that the purchase price is deposited with him to be sent to us after you have convinced yourself. 30 days should give you sufficient time to make up your mind.

You Can't Beat These Prices!!!

You can't buy a Separator of similar design and weight and approximate quality as cheaply as the "Cream Getter." We can afford to sell them at these low prices because the 100% record each "Cream Getter" makes will cause sales of other Separators. Prices include all accessories F. O. B. Pennsylvania, Chicago, or Minnesota Warehouses. See next page for Power Pulley equipment. Write us about equipment for Electric Power.

Order Number	Size Number	Capacity Per Hour	Shipping Weight	Introductory Prices	
*27-X-100	1	175 lbs.	80 lbs.	$34.50	3% Discount for Cash in Full with Order
*27-X-200	2	250 lbs.	85 lbs.	38.40	
27-X-300	3	375 lbs.	170 lbs.	52.00	
27-X-500	5	500 lbs.	175 lbs.	55.00	
27-X-700	7	750 lbs.	225 lbs.	64.00	
27-X-900	9	950 lbs.	230 lbs.	70.00	

*Indicates Table Sizes.

Your Old Cream Separator Taken as Part Payment

Here is your one big opportunity to rid yourself of that time, labor and cream wasting machine you are now using. We will take your old separator off your hands and accept it as part payment, allowing you a liberal amount toward the purchase of your Harris "Cream Getter." Be sure to mention the make, capacity and condition of your old machine and the size of the Harris "Cream Getter" which seems to meet your requirements. You need not send us your old separator until you try your new Harris "Cream Getter."

Plan No. 3

Cash in full. This secures for you an additional saving of 3%. Everyone knows that a better price can be made if a full remittance is made with the order. We allow a discount of 3% for remittance in full before shipment. Get the benefit of this extra saving. You are protected by our unlimited guarantee.

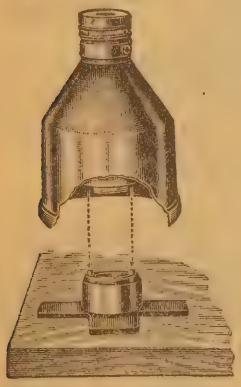
Plan No. 4

Name your own terms if for any reason the above do not suit you.

We cannot judge the circumstances of all who need "Cream Getters." If other plans do not suit, send your order with a first payment of what you can spare; then state how you wish to pay the balance of Plan No. 1 price.

Table Size Harris Cream Getter Separators!

With each Harris Cream Getter Separator we furnish one quart of the finest lubricating oil in a can with convenient spout. This oil is also sold separately.
9-X-10819. Guaranteed Separator Oil. Quart, 25c; gallon, 75c.



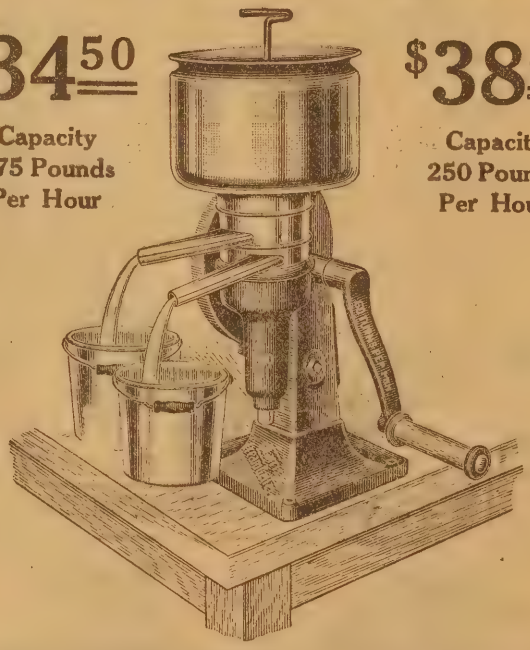
The above illustration shows the bowl vise which is furnished with each machine. This vise is securely attached to your table top, its purpose being to grip the bowl when taking it apart. No matter how tight the nut is fastened, it is a simple and easy task to loosen it with the aid of this vise.

$34.50

Capacity 175 Pounds Per Hour

$38.40

Capacity 250 Pounds Per Hour



The table size "Harris Cream Getter" separators are intended for the dairy where not more than three cows are being milked. These little machines do splendid work, getting all of the cream—the only requisite being that they be attached to a solid, rigid table.

The same exclusive patented features found in the larger sizes will be found in these machines. The same high grade tinware, triple coated to prevent corroding—the anti-splash tank—the exclusive patented equal milk distributor—the gearing and general high grade construction of "Harris Cream Getter" machines has been carefully carried out in these two small sizes.

See the table above for numbers, sizes, capacity and prices of these machines. You can own either of them under our liberal terms.

A spirit level is furnished with each separator. Place it several directions across where the skim milk cover fits. It is necessary that your separator be placed upon a solid level foundation to secure greatest efficiency and the perfect work which any "Harris Cream Getter" separator will give you.

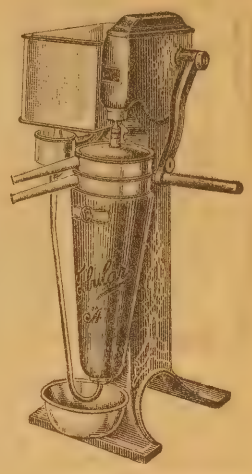
A combination machine wrench, power wrench and screw driver is furnished with each machine. This is the only tool you require to take the different sections of the machine apart and perfectly adjust it. A high grade tool made of best drop forged, properly tempered steel.

Two cleaning brushes of proper length and size are furnished with each machine which enables you to keep your separator spotlessly clean at all times. These brushes are made of select materials and will last years with ordinary care and usage. To facilitate the handling of the discs, a disc holder of sufficient length is furnished to permit you to spread the discs apart so all surfaces can be thoroughly cleaned.

Our Roofing Bargains Will Interest You!

We Have a Few Sharples Tubular "A" Separators Left from Our Gigantic Sale Just Closing!

Many thousands of our customers recommend the Sharples Tubular "A" Cream Separators to be efficient, easy to clean, easy to oil, and easy to run. Mr. P. M. Sharples, President of the Sharples Separator Co., built the first Cream Separator manufactured in America. The Sharples Separator Co. have been in operation for over 35 years and are well known for the high quality of their workmanship.



A Double Guarantee Protects You: Sharples Guarantee Forever and Our Money-back Guarantee.
Repair Parts Can Be Secured at Any Time.

The Excellent Principle of Construction and Operation

The tubular bowl has only three parts and varies from 1 29/32 inches to 2¾ inches in diameter, depending upon the size. This rotates at a high speed, accomplishing complete separation with ease. All gears are inclosed in the top section of the frame and are lubricated by an oil-splash system. There are no oil holes or oil cups to watch or fill up with dust. These gears can all be plainly seen by simply lifting off the gear cover. Anyone can understand how to operate, regulate and repair the separator if necessary from information given in the instruction book.

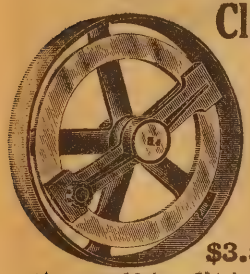
Low Quick Sale Prices

Order Number	Sharples Size	Cap., Lbs. Per Hour	Shipping Weight	Regular Price	Our Price
27-X-40	No. 4	500 lbs.	300 lbs.	$ 75.00	*$55.00
27-X-60	No. 6	700 lbs.	300 lbs.	90.00	* 67.50
27-X-90	No. 9	900 lbs.	300 lbs.	110.00	* 75.00

*Deduct 3% discount for cash with order. Other selling terms same as on the "Cream Getter." No. 4 shipped from St. Paul, Minn., or Chicago. Nos. 6 and 9 from Chicago only. If you have an old separator to exchange, let us know the make, capacity and condition as well as the size of the one you wish to buy.

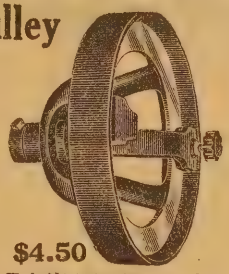
Other Selling Terms Same as on the "Cream Getter"

"Velvet Grip" Ratchet Friction Clutch Pulley



For Any Make of Separator

Specify Kind and Size



$3.50 $4.50

Diameter 12 in. 2½ in. crown face. Friction cross arm has two easily replaceable hard wood blocks at ends bearing on ring. Gradually tightening the hand nut, starts the separator gradually. Hub contains a ratchet to protect separator should the power stop suddenly. Bore to fit any separator.

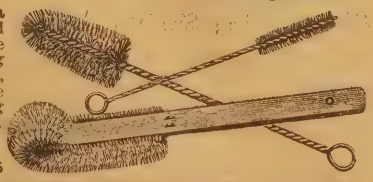
No. 27-X-126, straight spoke.....$3.50
No. 27-X-127, extended hub.....4.50

Brush Set 35 Cents

For Any Disc Separator

This set comes in a cardboard carton and contains one wood handle bowl brush for cleaning separator bowl and discs, one spout brush and one small brush for cleaning bowl necks, tubes, etc. Good quality bristles.

No. 27-X-128, weight 5 oz.....$0.35



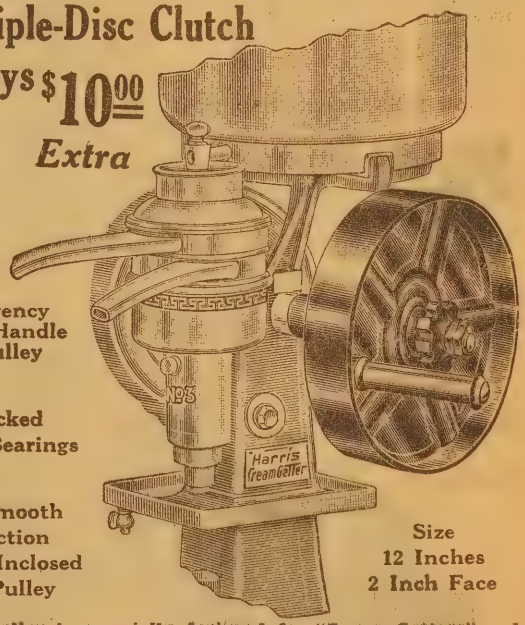
Cream Separator Repair Parts

Repair parts furnished free if within the terms of our guarantee. Please do not ask for catalogues of repair parts. We do not have them. Send orders for parts with remittance according to list in instruction books or estimated. If you send too much money we will refund. Describe parts in your own way if you do not know the correct names.

Bowl Rubbers

Sharples Tubular Separator (Give Size).....each $0.10
Rumley Separators (Give Size).....each .25
Cream Getter No. 1, 2, 3, 5, each $0.08; No. 7 or 9....each .10

"Cream Getters" Equipped with Multiple-Disc Clutch Pulleys $10.00 *Extra*



Emergency Crank Handle on Pulley

Locked Ball Bearings

14 Smooth Friction Discs Inclosed In Pulley

Size 12 Inches 2 Inch Face

This pulley is especially designed for "Cream Getters" and no pains have been spared to make it absolutely perfect for this purpose. Best to be had for any separator having ¾ or 1 in. shaft. It has 14 small discs, each alternate one with an extension which engages a lug on the inside of the disc holder When hand nut is loosened, these will slip without turning shaft. Slowly tightening the hand nut will gradually bring the separator up to skimming speed, without strain on the gearing. Extra well made and finished with hub extended 5⅞ in. Has locked-in ball bearings. Finished to match "Cream Getters." Emergency crank handle if power fails. Sold with the separator or separately. Weight 24 lbs.

No. 27-X-130. Specify size. Pulley only.....$10.00

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

See Description of Our Harris Friction Clutch Pulley

This is but one of many standard styles in our big complete stocks. We are constantly receiving vault doors of every description in connection with our purchases of complete plants. Let us know your needs.

Fire-Proof Vault Doors!

Made for use in Court Houses, Banks, Offices, Insurance Companies, Post Offices or any place where Fire Proof Safes have been installed. Increase Your Return on any new or old building. Tenant always looks for a place of protection for valuable documents.

Dimensions: Inside clearance 28x74 inches; made to fit an 18-inch wall. Opening in wall to receive vault, 32x77 inches. Approximate weight, 600 pounds.

The door of this vault is hung on two strong hinges and fitted with a 2x2x¼-inch steel angle around the entire edge; the door plate being made of 10 gauge steel. The angle is fitted with three cross bolts made of 1-inch cold rolled round steel and securely locked with a Yale Combination Lock. The inner doors are made double of 10 gauge and 14 gauge steel welded together, having up and down flat bolt work, securely locked with a flat key lock.

The rear flanges are so made that frame can be unscrewed, the vault placed in position, leveled, fitted and tried so that the bolt and locks work perfectly, then all crevices can be filled up and cemented, the rear flange screwed back and the vault will be ready for use. By making the flange on the rear of the vault in this manner, the building can be completed and vault placed in position without being marred.

Lot. No. 16-X-10. Brand New Vault Door..... **$165.00**

Overhauled Vault Doors and Safes!!

We have on hand at all times a variety of overhauled vault doors and safes. They are in first-class overhauled condition in every way, painted and all working parts put in the best condition. The handle and dial are re-pickeled—will make a very imposing fixture to any office. We have such makes as Hall, Diebold and Harris, all of which are standard on the market. Send us your inquiry, and we will furnish you complete detailed description and lowest prices.

CAST IRON ENDS FOR CONVEYOR BOXES

These ends take the place of a hanger or bearing. Makes a more rigid bearing for driving ends than a hanger or outside pillow block, and costs less, when labor and material for foundation for outside bearing is considered. The bearing is babbitted and furnished with oil tube.

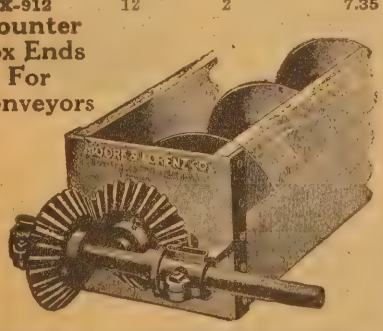
Order Number	Conveyor, Inches	Shaft, Inches	Price
16-X-901	4	1	$2.10
16-X-903	6	1½	3.15
16-X-910	8	1½	4.45
16-X-905	9	1½	4.75
16-X-900	12	2	8.40

CAST IRON DISCHARGE END BOX

When it is desired to discharge material through end of conveyor box, the use of end casting shown is recommended. It adds more rigidity to conveyor than an ordinary hanger. The bearing is babbitted and provided with oil tube. This style is used for both wood and steel boxes.

Number	Conveyor Size	Shaft Size	Price
16-X-900	4	1	$1.85
16-X-902	6	1½	2.90
16-X-904	8	1½	4.00
16-X-906	9	1½	4.20
16-X-912	12	2	7.35

Counter Box Ends For Conveyors



This device is designed to provide a cast iron end box and to furnish bearings necessary for the mitre gear counter shaft.

16-X-926	4	1	$15.75
16-X-928	6	1½	20.50
16-X-930	8	1½	22.50
16-X-932	9	1½	24.75
16-X-934	12	2	40.50

Elevator Conveyors, Boxes, Etc.

SPIRAL STEEL CONVEYORS

See Pages 237 and 239 for Elevator Buckets and Boots

Price includes steel curved lining, one hanger and one coupling with necessary bolts with each standard length.

Made in either right or left hand. Unless otherwise specified we will furnish the right hand conveyor.

This conveyor is manufactured expressly for us. It is interchangeable with that of all other manufacture. The services of high salaried mechanics and special tools are not required when installing or replacing flights. The standard lengths as given below include the width of one hanger bearing. Extra charge for driving end. Proper deduction made for fittings not wanted.

Fittings are not furnished with lengths less than standard, but will be charged extra. Write for prices.

Order Number	Outside Diameter in Inches	Standard Length, Feet	Inside Diam. of Hollow Shaft, Inches	Regular Diam. of Projections, Inches	Maximum Capacity per Hour, Bushels	Recommended Revolutions per Minute	Price per Foot
16-X-909	4	8	1	1	100	220	$1.85
16-X-911	6	10	1½	1½	350	200	2.10
16-X-906	8	10	1½	1½	750	180	2.60
16-X-913	9	10	1½	1½	1100	175	2.60
16-X-915	12	12	2	2	2000	150	3.65

Flexible Car Loading Spouts—Telescoping.

We furnish these spouts in any length, diameter or gauge of steel with round or square head, but list below only the standard sizes. Each spout is treated to a heavy coat of best black asphaltum paint. In ordering, give the size of the down-spout to which the spout is to be fitted, also whether round or square hopper is required.

Order Number	Diam., Inches	Length Feet	Hopper Inside Sq. Dia.	Size Inches Round Dia.	Gauge of Steel No. 18	No. 16	No. 14	No. 12
16-X-914	6	5	8	7	$12.35	$14.30	$17.15	$24.30
16-X-916	8	6	8	7	16.20	17.50	21.75	30.00
16-X-918	10	6	8	7	17.30	23.15	25.70	32.85
16-X-920	12	8	8	7	27.10	30.50	39.85	43.90

INTERMEDIATE EXTRA SECTIONS

Order Number	Diameter Inches	Approx. length each section adds to spout	No. 18	No. 16	No. 14	No. 12
16-X-919	6	9¼	$1.00	$1.55	$1.60	$2.00
16-X-921	8	9¼	1.35	1.65	1.75	2.50
16-X-923	10	9¼	1.55	1.75	2.00	3.05
16-X-925	12	9¼	1.70	2.00	2.15	3.50

Reliable Auto Accessories

Add 5% to all prices on this page to cover Government Tax

Radiators for Ford Cars

Brass Core

$20.00

Latest pattern honeycomb radiator for Ford cars—same design as built by the Ford Motor Co. Large water capacity and cooling surface guaranteed to keep your engine cool under most severe conditions. The core is flexible, allowing for expansion in case of freezing—water thawing gradually, which prevents bursting. All parts of core which come in contact with water are made of brass; radiator casing made of heavy wrought steel, finished in black Japan. Securely packed in wood box; weight 40 lbs.

4-X-1507. Radiator for Ford cars built from 1909 to 1916. Each.. **$20.00**

4-X-1508. Radiator for Ford cars, 1917 and 1918 Models. Each.... **$20.00**

Harris Spark Plugs

Junior 40c

Giant 75c

STOP SPARK PLUG TROUBLES

After careful investigation and tests of the most trying and severe kind, we discovered the perfect spark plug. The specially selected, carefully blended clay used in the porcelain cores offer greatest possible resistance to heat, vibration and oil. They cannot chip or crack. Will not leak or short circuit. Quickly and easily cleaned. Two types, Giant and Junior—five sizes in each type.

There's a Harris Spark Plug in Stock for Any Automobile, Truck, Motorcycle, Tractor or Gas Engine Ever Built!

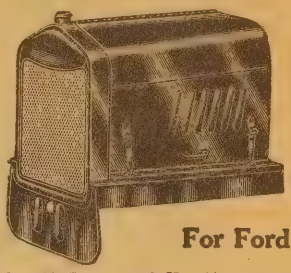
We guarantee "Harris" spark plugs indefinitely to give you best service under all conditions. We will replace, free of charge, any "Harris" plug returned to us that fails to completely satisfy you.

4-X-1500—Junior Plugs, each.....40c

4-X-1505—Giant Plugs, each.....75c

Give size of plug and make of motor.

Combination Radiator Shield and Hood



For Ford Cars

4-X-1506. Made especially to convert 1915 and 1916 Ford cars into the latest models, giving them a modern streamer line effect. The shield adds to the appearance, covering the springs and other unsightly parts. The radiator is equipped with the improved honeycomb core; practically indestructible; all parts coming in contact with water made of brass. Guaranteed to cool the engine. The hood shield and radiator shell or casing are made of heavy wrought steel, finished in black Japan; the honeycomb brass core in gray. Securely packed, weight 60 pounds. Price, complete **$30.00**

Best Auto Signal

THE "STARTLER"

$2.95

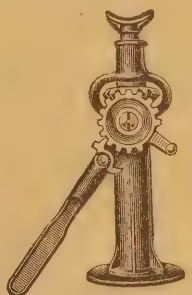
The starter signal for automobiles and trucks gives a sharp, clear warning. It is positive in action—prevents accidents. This splendid signal is the only vapor signal that acts when your machine is standing still and your engine running idle. Quickly and easily attached on any cylinder in place of a cup. Unusually well made and nicely finished. It is operated from a control cord which is run from the signal to the steering column. Especially valuable in traveling on country roads on account of its distinctive tone; so different from the average signal.

4-X-976. Automobile signal. Each..... **$2.95**

HIGH GRADE AUTO JACKS

$1.20

Guaranteed Strong and Durable



$2.00

4-X-977. A carefully designed jack for light weight cars quickly and easily adjusted to different heights by spinning the top gear. Only four working parts; self locking at any point; three sizes.

Capacity	Height Lowered	Height Raised	Price
2,000 lbs.	8 in.	12 in.	$1.20
2,000 lbs.	10 in.	16 in.	1.25
2,000 lbs.	12 in.	20 in.	2.00

4-X-971. Designed for speed. The crank mechanism on side gear does away with pumping when raising or lowering the rod. Strong and well made; nicely finished; three sizes.

Capacity	Height Lowered	Height Raised	Price
4,000 lbs.	8½ in.	14 in.	$2.00
3,000 lbs.	10½ in.	18 in.	2.25
6,000 lbs.	12 in.	20 in.	3.00

Grease Cup Wrench

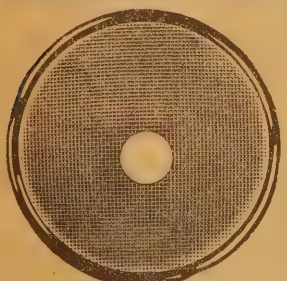
Finely Made

40c

4-X-1509. A simple, inexpensive wrench that will prove to be the most handy article in your tool box; made of nickel-plated steel. Fits every auto grease cup made—all sizes and types. Needs no adjusting. With this wrench you can turn your grease cups easily and quickly without soiling your hands or clothes. Price, each..... **40c**

Anti-Glare Auto Lenses

All Sizes

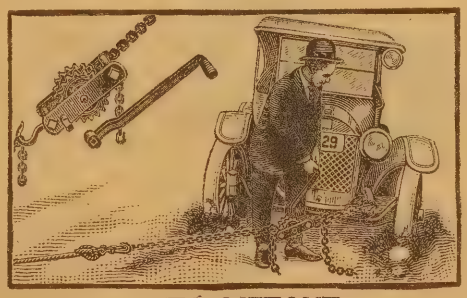


95c Pair

Flood the road ahead for 600 feet in front of your car with a strong but softened light, revealing everything on either side at a distance of 30 feet.

An extra fine lens with 2,000 prisms cut on the inner side with a "bull's eye" pointing down just below the center, shooting a clear ray of light downward. The outside surface is smooth—proof against dust, mud, rain and snow.

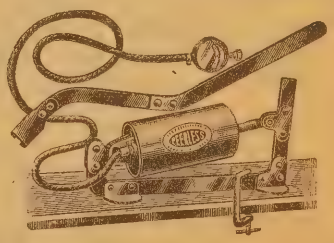
5-X-1511. Sale price (give exact diameter of your present lenses), per pair.. **95c**



AUTO LIFTOUT

4-X-978. This simple device will prove to be the most necessary and important part of your equipment. On the road and in the garage, it is dependable, quickly and easily adjusted. Will lift your car out of the deepest ruts. Offers a splendid garage hoist, enabling you to raise your car to any convenient height for working underneath. The car leverage afforded by the patented construction enables you to move or lift a car of any weight with little exertion. Furnished complete with 8-ft. pulling chain and 4-ft. anchor chain with hooks. Self locking. Price..... **$15.00**

Peerless Auto Tire Pump



4-X-1510. Quick acting auto tire pump; can be attached to the running board of any machine. Durably constructed; guaranteed for the life of your car. Each pump is equipped with gauge, indicating the power pressure. Detachable handle; will fit in a small tool box. Nicely finished in red and black Japan, two coats baked on. Complete without gauge. Price, each..... **$3.50**

4-X-1511. Peerless auto tire pump, without gauge..... **$2.95**

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Paint? Ask for Our New Color Card!

HOSE FOR ALL PURPOSE USE!

WATER HOSE FOR GENERAL PURPOSES.

3-X-39. This is a high grade hose and a better quality than used for lawn and sprinkling purposes. It is made to stand hard usage. We furnish it in lengths of **10, 15, 20, 25, 30, 35, 40, 45 and 50 feet.** Prices do not include couplings.

Inside diam., in., 1, 4-ply	$0.38
Inside diam., in., 1¼, 4-ply	.48
Inside diam., in., 1½, 4-ply	.57

HIGH GRADE STEAM HOSE.

3-X-40. This is an extra high grade hose, the inner tube of which is specially compounded to resist the action of heat. Walls are made of heavy duck and guaranteed fully in every particular. Furnished in **multiples of 5 ft. only up to 50 ft.**

Inside Diameter Inches	4 Ply for 35 lbs. steam or less Per Ft.	5 Ply for 50 lbs. steam or less Per Ft.	6 Ply for 75 lbs. steam or less Per Ft.
½	$0.42	....	....
¾	.54	$0.66	$0.79
1	.66	.81	.96
1¼	.78	.98	1.17

RED WOVEN COTTON COVERED SUCTION HOSE.

3-X-45. This is a smooth bore hose and is non-kinkable. Owing to the heavy woven cotton cover this hose will stand the hardest usage and will outwear any other suction hose manufactured. Has enlarged soft rubber ends to fit over 2 inch tank pump connection, and is sold in lengths of **10, 15, 20 and 25 ft.** Size inside diameter;

	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
Price per ft.	63c	69c	81c	96c	$1.13

Garden Hose Priced Low

All High Grade Brand New Stock--Guaranteed to Satisfy

25 ft. Length $3.95

4-PLY GARDEN HOSE

This hose is very good for light pressure, made with the best quality rubber seamless inner tubing, closely woven, long fibre cotton duck layer or plies with heavy rubber coating between each ply. The outer coating is of heavy rubber and of the same thickness as used on our better grades of hose.

Lot No.	Size, In. Dia.	Size Couplings	Price, 25 feet.	Price, 50 feet.
3-X-33	⅝"	¾"	$3.95	$7.50

5 PLY GARDEN HOSE

We advise the use of this grade of hose for ordinary pressure.

It is made in the same general manner as our 4 ply Hose, but the plies are heavier, making a stronger and more durable hose, which is less liable to bend or kink.

With reasonable care, will last two or three seasons.

Lot No.	Size, In. Dia.	Size Couplings	Price, 25 feet.	Price, 50 feet.
3-X-34	⅝"	¾"	$4.45	$8.45

6-PLY GARDEN HOSE.

One of the best grades of garden hose made. Built for heavy pressure.

The plies are made of heavier cotton duck than used in our other hose. The inner tubing and covering are made of the highest grade of rubber used for this purpose.

Lot No.	Size, In. Dia.	Size Couplings	Price, 25 feet.	Price, 50 feet.
3-X-35	⅝"	¾"	$5.15	$9.95

7 PLY GARDEN HOSE

This hose is the very best grade made. It is 7 plies of firmly woven fabric vulcanized together with a very high grade cement and an outer covering of rubber. This is generally demanded where a high grade hose is appreciated. We recommend it for any service and for the highest pressure.

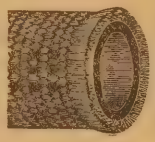
Lot No.	Size, In. Dia.	Size Couplings	Price, 25 feet.	Price, 50 feet.
3-X-36	⅝"	¾"	$5.75	$11.10

MOULDED HOSE

The features of this hose are **Continuous Lengths:** It can be cut and coupled in any length desired by the user: **Seamless Construction:** every strand of cotton is continuous and there are no seams in either cotton or rubber. Being moulded under high pressure both internal and external, it does not kink. Made with plain smooth rubber cover, thick durable tube and two separate and independent braids of hard twisted cotton, between which is a distinct layer of rubber. Will stand a pressure of 100 to 125 pounds. **Furnished in Lengths, 25 ft. and over. Couplings extra, 35c per set.**

Lot No.	Size in Dia.	Price per foot
3-X-37	¾"	20c

BRAIDED COTTON COVERED RUBBER LINED GARDEN HOSE.



3-X-38. The jacket is made of the most carefully selected Sea Island cotton of long fibre and woven very heavy and close: intended to resist hard usage. The tube is made of the finest "Para" rubber. This hose is guaranteed to give good service and to be satisfactory in every respect. It is in every sense a strong, durable and lasting hose. We offer but one grade and that is the best, suitable for heavy pressure. Price includes ¾" couplings. Furnished only in 25- and 50-foot lengths.

Size inside diameter.	Price, 25 ft.	Price, 50 ft.
¾-inch.	$4.80	$9.25

TWO INCH TANK SUCTION HOSE.

3-X-46. This is the regular standard Thresherman's Suction Hose, with steel wire inserted in walls to prevent collapsing. Has large rubber ends and will fit over 2 inch tank pump connection. Sold in lengths of **10, 15, 20 and 25 feet only.** Size inside diameter 2 inches. Price per ft. **63c**

Hose Clamp . . 8c

Galvanized Wrought Steel

3-X-57. Order clamps same size as diameter of hose, except for 2-inch tank hose, which requires 2¼-in. clamps.

Size hose inches	Price each	Size hose inches	Price each
½	$0.08	1½	$0.22
¾	.10	2	.32
1	.15	2¼	.35
1¼	.18	2½	.40

Hose Reels . . . $1.95

3-X-47. The use of a reel is recommended, as it drains the hose when winding in; also prevents the unnecessary wear. **Be sure and order a reel with your hose.**

Are oil finished, hardwood frame, iron wheels, capacity 100 feet of ¾" hose.

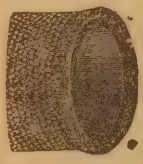
Price each **$1.95**

USED COTTON RUBBER LINED FIRE HOSE.

3-X-44. For conveying water to cisterns, troughs, etc., for irrigating and other purposes where you wish to convey water from one place to another where no pressure is desired. We carry a large stock of the following size and offer it at price about one-third the cost of new hose. Price does not include couplings.

Size	2½
Price, per foot	10c

COTTON RUBBER LINED FIRE HOSE.



3-X-42. For fire protection purposes. This is a single jacketed cotton rubber lined mill hose, tested to 250 pounds and furnished complete with automatic brass couplings which require no clamps. Every length fully guaranteed. In ordering be sure and state whether the couplings are to fit standard iron pipe or hose thread.

Inside Diameter Inches	Price Per Length 25 Ft.	Price Per Length 50 Ft.
1¼	$12.15	$21.40
1½	13.50	23.80
2	17.55	30.95
2½	21.75	38.25

Hose Coupling . . . 30c

Water Hose

3-X-56. Order couplings same size as inside diameter of hose. Price without clamps.

Size hose, in.	¾	⅞	1	1¼	1½	2
Price per set	$0.30	.35	.50	1.10	1.50	2.35

HARD RUBBER SUCTION HOSE.

3-X-43. Hard Rubber Suction Hose, smooth bore, extra heavy walls which will prevent collapsing when in use. Sold in lengths in **multiples of 5 feet to fifty feet inclusive.** Prices do not include couplings or clamps.

Size, Inches	¾	1	1¼	1½
Price per ft.	$0.27	$0.33	$0.38	$0.51

Hose Nozzle . . 75c

3-X-55. "Gem pattern will throw a solid stream or spray. Size for ¾" hose coupling. Price, each **75c**

Lawn Sprinkler . . . $2.25

WHIRLWIND REVOLVING

3-X-49. The most popular Sprinkler offered. Brass head and arms. Sprinkler's height is 8 inches, with three 6-inch brass arms. Has loose swivel in sled. Covers a large area. The head is easy running and will operate equally as well under a low as a high pressure. This is a very handsome lawn fixture and can be placed anywhere without shutting off the water. Will fit ¾" hose coupling.

Price each **$2.25**

STEEL STORAGE TANKS

6,000 to 10,000 Gallons Capacity

Write for Special Freight Prepaid Prices

These tanks are made of best open hearth tank steel; all workmanship guaranteed strictly first class, and all rivets as well as seams thoroughly caulked. Each tank has a 15-inch diameter cast iron manhole on top and two 2-inch openings on the bottom. Each and every tank is thoroughly tested and inspected before shipment, painted and guaranteed absolutely tight in every respect for storage purposes. Write for special freight prepaid prices on these tanks.

All Tanks Tested and Inspected Before Shipment

SMOKE STACKS

We Guarantee material and Workmanship of all Smokestacks and Connections

Special Bargains

In connection with our purchases of complete power plants, we generally have on hand a large number of fine second-hand stacks. Any second-hand stack that we furnish is guaranteed to be in a good sound condition. All stacks are painted with a special black mineral paint that protects the metal from the weather.

Splendid Facilities

We Can furnish **Smoke Stacks, Boiler Breechings, Smoke Boxes** and **Extensions** in any size and shape. With our unusual facilities **we can save you money** on any purchase that you may make in this line.

Our Prices

When writing for quotations on stacks be sure to specify whether the plain or round stack (the same diameter at the base as at the top) is required. Where there is a tapering, round or oval base or an umbrella top there will be an extra charge. Quotations include the guy and top bands.

Remember

In ordering round and oval bases, always give the outside measurements of the collar over which they fit; if for round bases give the diameter; if for oval base, give the outside measurements of both the length and width of the oval through the center.

Just now our stock of smoke stack is complete in all sizes from 6 inch diameter to 84 inch diameter. We also receive regularly, in connection with our big purchases, self supporting smoke stacks in all sizes. What can you use? Let us know your needs!

Fifteen carloads, 20 inch diameter spiral riveted steel pipe or stacks, ten gauge. Can be used for smoke stacks or culverts.

"MODERN" CENTRIFUGAL PUMP SALE

$42.50 AND UP

Style No. 8-X-85. New "Modern" Horizontal Side Suction **Centrifugal Pump.**

OUR "MODERN" SIDE SUCTION CENTRIFUGAL PUMP

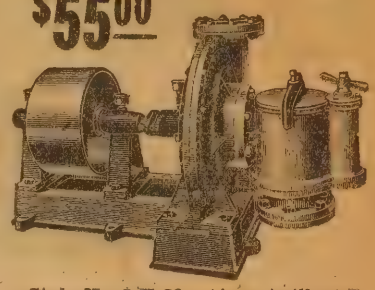
The pumps shown are the types used most extensively for general purposes and all irrigating and drainage service not exceeding 50 feet total pumping head. Large pulley is supported on either side by long bearings furnished with brass compression grease caps. Only genuine babbitt metal is used in our bearings. Extra long stuffing box with packing gland is provided on shaft to insure operation without attention. We supply free the companion flanges for both suction and discharge openings. All parts of these pumps are accurately made and are interchangeable and can be promptly duplicated at any time.

Accessories, such as foot valves, flap valves, steam primers, etc., can be supplied at extra charge.

Our style No. 8-X-86 is the modern Side Suction Centrifugal Pump, equipped with a hand suction primer. This does not require the use of a foot valve to retain water in suction pipe while priming, and while the cost is a little more it is a great convenience. Prices for pumps equipped with hand suction primer are given in table below.

IRRIGATING PLANTS FURNISHED COMPLETE

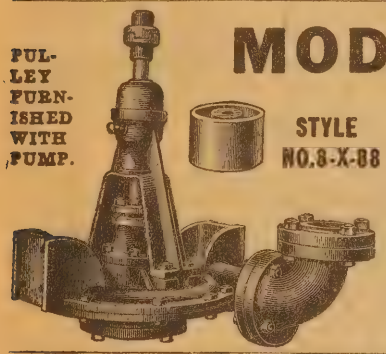
$55.00



Style No. 8-X-86. Above is illustration of our New "Modern" style No. 8-X-86 Horizontal Side Suction **Centrifugal Pump,** equipped with primer.

Sizes, capacity and prices of "Modern" Side Suction, Brand New Centrifugal Pumps, F. O. B. Factory, Style 8-X-86, without Primer. Style 8-X-85 with hand suction primer.

No. Pump.	Capacity, Gallons, Minute.	Size. Pipe. Discharge	Size. Pipe. Suction.	Diam. x Face, Pulley, Inches.	STYLE 8-X-85, WITHOUT PRIMER. Iron.	STYLE 8-X-86, WITH PRIMER. Iron.
1½	70	1½ in.	2 in.	4 x 4	$ 42.50	$ 55.00
2	125	2 "	2½ "	5 x 5	65.00	85.00
2½	185	2½ "	3 "	6 x 5	80.00	95.00
3	270	3 "	4 "	7 x 6	105.00	130.00
4	480	4 "	5 "	8 x 8	140.00	165.00
5	750	5 "	6 "	10 x10	195.00	225.00
6	1100	6 "	8 "	11½x10	275.00	310.00
8	2000	8 "	10 "	12 x12	375.00	.....
10	3000	10 "	12 "	15 x12	495.00	.....



PULLEY FURNISHED WITH PUMP.

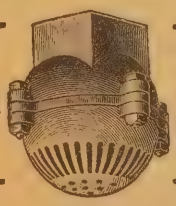
STYLE NO.8-X-88

MODERN VERTICAL SUCTION CENTRIFUGAL PUMP

This pump, Style 8-X-88, is intended principally for irrigating service, and is used by attaching the Suction Flange direct to well casing, the pump being mounted in a wooden frame work carrying not only the pump but the shafting, bearings, etc., to drive the pump from the pulley located just above ground surface at top of well. Pumps are furnished with pulley. Bearings, shaft collars, and steel shafting can be supplied at extra cost if desired. The table below gives prices on Style 8-X-88, and also Style 8-X-87 illustrated at bottom of page. Couplings are bored same size as shaft and bearings.

MODERN FOOT VALVES WITH STRAINERS

Style No.21-X 888



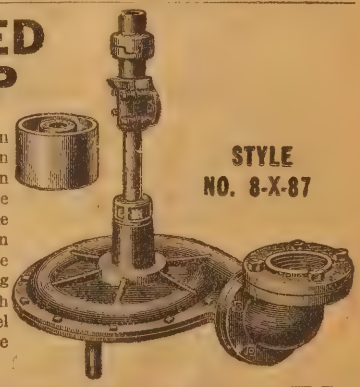
Foot Valves should always be used with Centrifugal Pumps

Six inch and smaller screw end, larger sizes have flanged ends.

Size.	Net Price.
2 in.	$ 3.75
3 in.	5.75
4 in.	7.50
5 in.	9.00
6 in.	11.00
8 in.	18.00
10 in.	25.00
12 in.	32.00

MODERN SUBMERGED CENTRIFUGAL PUMP

Pump shown as style 8-X-87 herewith, the prices being given in the table below, is intended to be entirely submerged in the liquid to be pumped, and is therefore used without a suction pipe. The submerged style of pump needs no priming. Price includes upturn elbow, with companion flange, jaw coupling, one bearing with set collar for shaft and pulley, exactly as shown in the illustration. It will be noted that coupling is bored same size as shaft and bearing which obviates necessity for turning down end of shaft to fit coupling. Set screws are furnished with all couplings. Extra bearings, set collars for shaft couplings, steel shafting, etc., can of course be supplied at extra cost. Write for prices stating what you require.

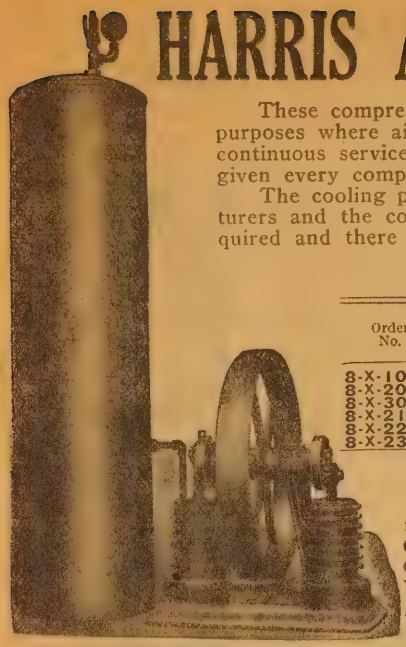


STYLE NO. 8-X-87

No. Pump	Economical Capacity Minute	Size of Pipe Disch.	Size of Pipe Suct.	Pulley Diam.	Pulley Face	Coupling Bored for	Style 8-X-88 Suction Pump, Iron.	Style 8-X-87 Submerged Pump, Iron
1½	70 Gals.	1½ in.	2 in.	5 in.	5 in.	⅞ in. shaft	$ 52.50	$ 50.00
2	120 Gals.	2 in.	3 in.	6 in.	6 in.	1⅛ in. shaft	85.00	95.00
2½	185 Gals.	2½ in.	3½ in.	7 in.	6 in.	1⅛ in. shaft	105.00	105.00
3	265 Gals.	3 in.	4 in.	7 in.	8 in.	1¼ in. shaft	125.00	120.00
4	470 Gals.	4 in.	5 in.	10 in.	8 in.	1½ in. shaft	140.00	130.00
5	735 Gals.	5 in.	6 in.	10 in.	10 in.	1⅝ in. shaft	180.00	175.00
6	1060 Gals.	6 in.	8 in.	14 in.	12 in.	1⅝ in. shaft	220.00	235.00
8	2000 Gals.	8 in.	10 in.	20 in.	12 in.	2⅛ in. shaft	335.00	325.00
10	3000 Gals.	10 in.	12 in.	24 in.	12 in.	2½ in. shaft	425.00	415.00

Write for Our New Gasoline Engine Catalog

HARRIS AIR COOLED AIR COMPRESSORS



These compressors are adapted for garages, machine shops, foundries, boiler shops and for all purposes where air at high pressure is required. These machines are very substantially built for continuous service. The air cooling feature has proved absolutely satisfactory and the regulation test given every compressor is to run ten hours against rated pressure.

The cooling principle is exactly the same as employed by the air cooled automobile manufacturers and the cost of installation is greatly reduced, as no tank or water pipe connections are required and there is no danger of freezing in winter.

Maximum Working Pressure 150 to 200 Pounds

Order No.	Style	Cu. ft. Free Air per Min.	Diam. of Cylinder	Length of Stroke	Rev. per Minute	Discharge Pipe	Diameter Pulley	Weight Lbs.	Horse Power Required	Prices Compressor Only
8-X-1007	Sgl. Cyl.	4	3½ in.	4 in.	200	½ inch	24x3 in.	240	2 H. P.	$48.00
8-X-2007	Sgl. Cyl.	6	4 in.	5 in.	200	¾ inch	24x3 in.	300	3 H. P.	65.00
8-X-3007	Sgl. Cyl.	12½	5 in.	6 in.	200	1 inch	30x4 in.	600	5 H. P.	96.00
8-X-2107	Dbl. Cyl.	8	3½ in.	4 in.	200	½ inch	24x3 in.	300	2 H. P.	85.00
8-X-2207	Dbl. Cyl.	12	4 in.	5 in.	200	¾ inch	24x3 in.	350	3 H. P.	115.00
8-X-2307	Dbl. Cyl.	25	5 in.	6 in.	200	1 inch	30x4 in.	750	5 H. P.	148.00

SHIPPED FROM FACTORY
CENTRAL PENNSYLVANIA

EXTRA SNAPS IN AIR TANKS

100 Air Pressure Tanks, made of ¼-inch steel; good for 200 pounds pressure, tapped to lay horizontally or vertically. When ordering state which type you prefer.

Order No. **8-X-3802.** 20 in. by 8½ ft. Air Pressure Tanks.....$55.00
Order No. **8-X-3803.** 20 in. by 9½ ft. Air Pressure Tanks..... 65.00
We will equip tank with 3½-inch air gauge, extra..... 3.75
Pop Safety Valve, ¾-inch connection, extra..... 4.50

50 Vertical Seamless Welded Air Tanks, good for 200 pounds pressure, 16 inches diameter, total height, 46 inches.

Order No. **8-X-3804.** Each.....$25.00

FAULTLESS AIR COMPRESSOR

THE FAULTLESS AIR COMPRESSOR is a single-cylinder, single-acting, air-cooled machine.

POWER REQUIRED from one to two Horse Power, depending on speed and air pressure.

PRESSURE as high as 300 pounds per square inch can be developed with safety and a constant pressure of 200 pounds can be maintained without overheating.

SPEED should be about 300 revolutions per minute for constant running, although a speed of 400 for short intervals will be safe.

CAPACITY at 300 revolutions per minute is about five cubic feet of free air, at 400 revolutions over six and one-half cubic feet.

INTAKE is at top, a much better practice than at the bottom near the floor.

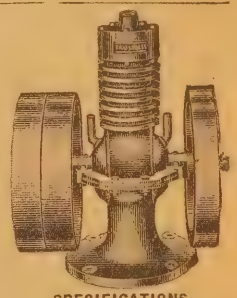
MATERIAL is of the very best for the purpose throughout. Base, cylinder, piston, fly wheels and pulley are close grained iron; connecting rod, all bearings and bushings are of bronze.

CRANK CASE enclosed and dust-proof. Lubrication by splash from oil in base, eliminating all grease and oil cups.

PULLEYS tight and loose, 13-inch diameter, 2¼-inch crowned face, weighing about the same as fly wheel, insures a steady running, perfectly balanced machine.

FINISH in Engine Green Enamel, with aluminum trimming.

VALVES are of special design poppet type in the head easily removed by taking out five bolts.

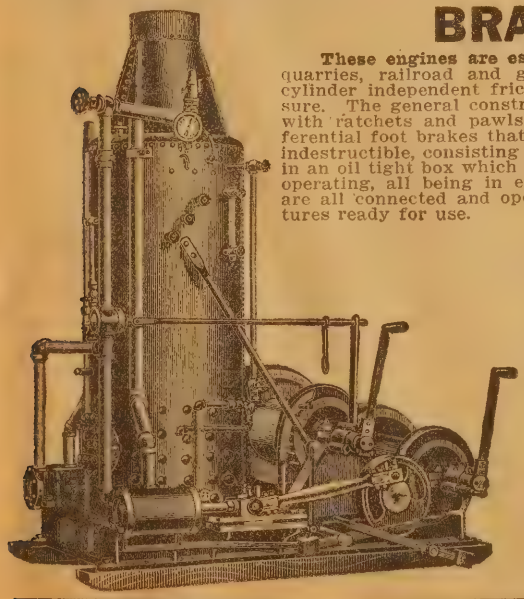


SPECIFICATIONS

Bore, 3-inch. Stroke, 4-inch. Fly wheel, 14-inch diameter, 2-inch face. Pulleys, 13-inch diameter, 2-inch face. Height, 23 inches. Floor space, 15x19 inches. Capacity, 4 to 7 feet free air per minute. Weight, 130 pounds.

8-X-9020. Price.....$39.50

BRAND NEW STEAM HOISTS



These engines are especially adapted for operating derricks, dock and bridge building, pile driving, quarries, railroad and general construction work. This is our standard improved type of double cylinder independent friction drum engine. The boilers are built to carry 125 lbs. working steam pressure. The general construction embodies all modern improvements for convenience. The drums are fitted with ratchets and pawls for holding a load when desired and are also fitted with the best type of differential foot brakes that will hold any load that the engine can hoist. Our thrust apparatus is practically indestructible, consisting of a series of multiple discs located between the thrust pin and the thrust screw, in an oil tight box which is filled with oil. The operating levers are arranged for the best convenience in operating, all being in easy reach of the engineer without changing his position. The cylinder cocks are all connected and operated with one lever and all engines are fitted complete with all necessary fixtures ready for use.

Double Cylinder, Double Friction Drum Hoist

Size No. of Engine	Horse Power Usually Rated	Dimension of Cylinders in Inches		Dimension of Drums in Inches		Proper Weight Pile Hammer	Weight Will Hoist Single Line Average Speed	Dimension of Boilers in Inches			Approximate Shipping Weight
		Diam. Cylinders	Length Stroke	Diam. Drums	Length Drums			Diam. Boilers	Height Boilers	No. 2-in. Tubes	
30	8	4½	6	9	18	1000	2400	28	68	40	5000
32	11	5	8	10	18	1500	3400	30	78	50	5350
34	16	6	10	12	20	2000	4600	34	84	60	7400
36	20	6½	10	14	22	2500	5700	36	84	65	8600
38	22	7	10	14	24	3000	6600	38	90	77	9950
40	28	7½	10	14	26	4000	7800	40	90	85	11000
42	34	8¼	10	16	28	5000	8400	42	96	90	12950
44	45	8½	12	16	30	6500	10200	44	102	104	14700
46	50	9	12	16	30	9000	10800	46	102	125	16350
48	55	10	12	18	32	10000	12300	50	102	155	20950

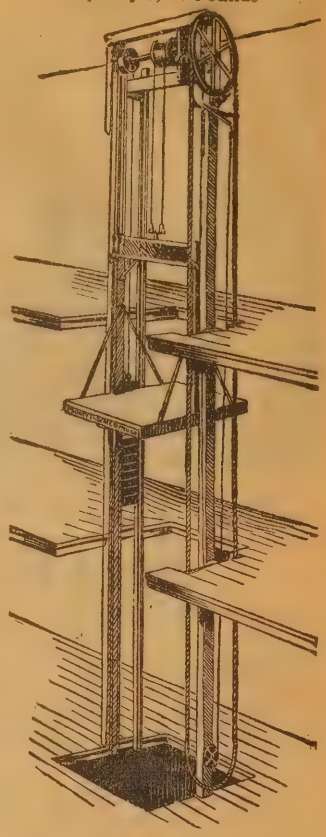
Prices on Application—Ask Now

HAND POWER ELEVATORS

Our brand new Hand Power Elevators are being installed throughout the country in stores, warehouses, factories, garages and many other places where hand power elevators can be used. They are so simple and so perfect that it is almost impossible for them to get out of order. They are strictly up-to-date in every respect, equipped with all the latest improvements and are built for heavy work and hard usage.

BARGAIN PRICE ELEVATORS. HAND POWER—DRUM WIND —EASY RUNNING

Complete with 4 Ft. x 4 Ft. Platform
Other Sizes up to 6 Ft. x 8 Ft.
Capacity 1,000 Pounds



Construction

CAR—Made rigid, and is strongly ironed and braced.
CABLES—Three cables, two hoisting and one counter-weight cable, are used. These cables have an ultimate strength ten times greater than the rated capacity of the elevator. The Center Lift construction is undoubtedly the best, as the platform always hangs straight and can not bind. There is consequently no unequal strain on the cables, as may be the case with the side lift elevators.
ROPE WHEEL—Both iron and wood rope wheels are furnished, depending on the size platform used. The brake arrangement on the wood rope wheel is much more secure and on platforms larger than 6x7 feet, this type of wheel is used.
OPERATING ROPE—Strong manila rope made endless. The elevator can be built to have the hand rope wheel on either side, as desired.
BRAKE ROPE—Of convenient diameter and proper length and strength.
SPUR GEAR WHEELS—Extra heavy and cast from cut patterns—the very truest and best that can be made.
COUNTER-BALANCE WEIGHTS—Made in sections so that the desired adjustment may be secured. We furnish enough of these weights to lift the car with a light load.
SAFETY BRAKE—A self-holding shoe brake, and will not drag and make a noise. The platform, with a full load, can be firmly locked at any point. The operator has full control of the car at all times.
DRUMS—Made of wood, and are turned in a lathe, and perfectly smooth.
TOP FRAME—We have done away with the old fashioned, clumsy frame work found on elevators of the old type. See how simple is our frame work. We make this part of the elevator unusually strong and heavy, and as a result we receive no complaints as to the operation of our machines.

The car can be operated or controlled from the platform or any floor.

For **simplicity, safety, quickness** and **easy running** this is undoubtedly the best cable lift elevator on the market.

Our complete outfit consists of the elevator complete with all wood work and iron work—complete elevator ready to set into place.

How to Order

When ordering or asking for estimate of cost it would be well to give the following information:

Give the height of each story of building from top-of-floor to top-of-floor, with the height of the top story in the clear.

Give total number of feet travel. The clear height of the top floor should not be less than 10 feet. (A greater space than this in many cases would be better to prevent crowding.)

State on which side you would prefer to have the hand rope wheel, whether left hand or right hand side when standing in facing the front.

Give the size of platform wanted and the maximum lifting capacity; or state size of the existing hatchway, if we are to make an elevator to fit a certain size of opening.

Drawings and Instructions for Installing

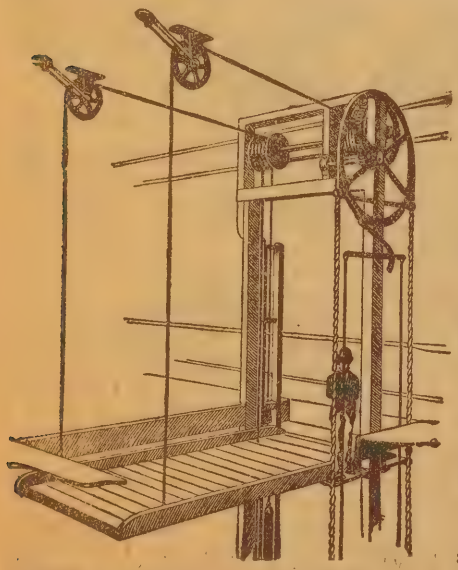
Are sent with each elevator, so that any carpenter can install without difficulty. All our machines are made with a view to simplicity throughout, and are therefore easier to erect and at less expense for labor than others.

8-X-550.	4x4	Platform complete with 10 foot lift	**$180.00**
8-X-552.	4x5	Platform complete with 10 foot lift	**$190.00**
8-X-554.	4x6	Platform complete with 10 foot lift	**205.00**
8-X-556.	5x6	Platform complete with 10 foot lift	**215.00**
8-X-560.	5x7	Platform complete with 10 foot lift	**225.00**
8-X-562.	6x7	Platform complete with 10 foot lift	**235.00**
8-X-564.	6x8	Platform complete with 10 foot lift	**245.00**
We can furnish above elevators at 2,000 lb. capacity at, extra			**30.00**
For each additional foot of lift over ten feet add			**2.35**
Safety Clutches or Locks. Set of four. Extra			**28.00**

Built for Any Travel

STRONG, DURABLE AND EASY RUNNING CARRIAGE ELEVATORS

Cars of Any Desired Size



These Elevators are made strong and durable, and are very easy running, all of which features are most important. The necessary journals are fitted with Roller Bearings which run with inappreciable friction. These Bearings require no attention, and only occasional oiling. All Ropes are placed inside the Hatchway, making it convenient for the operator when he is running the elevator, standing on the platform. This arrangement also does away with the unnecessary friction between the floor and the ropes.

The Breaking Strain of the Lifting Cables is many times that of the rated capacity of the elevator—therefore providing a **Large Factor of Safety.**

The carriage elevator can be used without posts on rope side on floors, except the top, but guide posts are preferable—just sufficient to keep the platform from swinging. Both styles designed especially for carriage factories, livery stables, agriculutral warehouses, etc., and are more suitable for such than a center lift. This elevator has our improved brake and **Safety Stop** at top floor to keep platform from running too high. The Counterweight may be run down any convenient wall at a distance, if necessary.

Construction

PLATFORMS—Made rigid and are strongly ironed and braced.
CABLES—Five cables—four hoisting and one counter weight cable are used. These cables have an ultimate strength ten times greater than the rated capacity of the elevator.
LARGE ROPE WHEEL—Made of cast iron and has its face turned true for the brake.
OPERATING ROPE—Strong Manila Rope made endless.
BRAKE ROPE—Of convenient diameter and proper length and strength.
SPUR GEAR WHEELS—Extra heavy and are cast from cut patterns—the very truest and best that can be made.
COUNTER-BALANCE WEIGHTS—Made in sections so that the desired adjustment may be secured. We furnish enough of these weights to lift the car with a light load.
SAFETY BRAKE—A self-holding shoe brake, and will not drag and make a noise. The platform with a full load can be firmly locked at any point. The operator has full control of the car at all times.
DRUMS—Made of wood, and are turned in a lathe, and perfectly smooth.
TOP FRAME—Which supports the machinery is built of well seasoned lumber, properly braced so to be rigid. We make this part of the elevator unusually strong and heavy, and as a result, we receive no complaints as to the operation of our machines.

For **Simplicity, Quickness** and **Easy Running** this carriage elevator excels, and is undoubtedly the best machine on the market.

8-X-565. 6x10 Platform complete with 10 foot lift **$215.00**

8-X-566.	6x12	Platform complete with 10 foot lift	**$225.00**
8-X-567.	6x14	Platform complete with 10 foot lift	**235.00**
8-X-568.	7x12	Platform complete with 10 foot lift	**245.00**
8-X-569.	7x14	Platform complete with 10 foot lift	**251.25**
8-X-570.	7x16	Platform complete with 10 foot lift	**262.50**
8-X-571.	7x18	Platform complete with 10 foot lift	**$268.95**
We can furnish above elevators at 2,000 lb. cap. at, extra			**30.00**
We can furnish above elevators at 3,000 lb. cap. at, extra			**61.50**
We can furnish above elevators at 4,000 lb. cap. at, extra			**90.00**
For each additional foot of lift over ten feet add			**2.35**

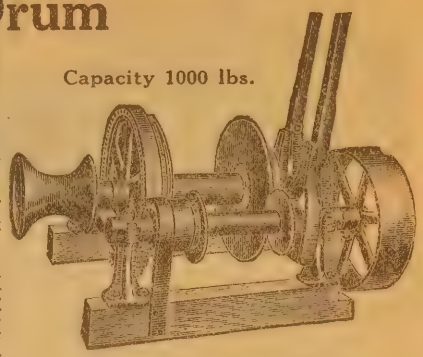
F. O. B. Factory

Belt Driven Power Hoists

Single and Double Drum

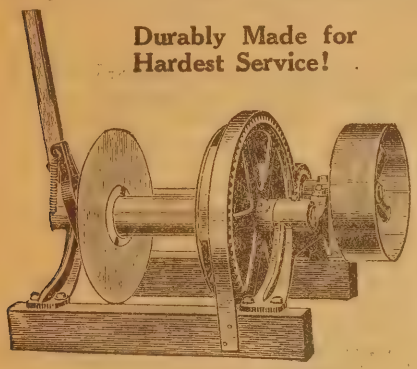
This powerful machine designed especially to save time and labor in unloading hay with regular harpoon fork or sling in connection with track and carrier. The machine will save one man and team, the man on the load operating the machine by simply pulling a line attached to a lever whenever he has the fork or sling ready to hoist. The machine stops pulling instantly when the lever line is released, the load may be dropped at any point and the fork or sling returned to the starting point, by hand, power or by means of a weight, as desired. If the fork fails to operate properly, the operator may allow the load to return gently to the starting point, or by allowing friction to slip, may hold load at fixed point. The machine is safe to operate, as it pulls strong and steady, and is under instant control.

The machine, equipped in the various types described below, is adaptable for all kinds of pulling within its capacity, such as operating a hay fork, hoisting ice, loading boats, hoisting contractor's material, operating fence post or pile driver, scraping dirt, etc. **Finish**—Made of good material, well painted and all parts found defective in material or workmanship within one year will be replaced without charge. Defective parts to be returned to us prepaid.



Capacity 1000 lbs.

Type "B" Double Drum



Durably Made for Hardest Service!

Type "A" Single Drum

Specifications and Prices:

Large Drum—Diameter of center, 4 inches; diameter of flange, 18 inches; length inside flanges, 12 inches. Capacity of drum, 240 feet 1-inch rope.
Small Drum—Diameter of center, 2¾ inches; diameter of flanges, 7 inches; length inside flanges, 10 inches. Capacity, 160 feet ⅜-inch rope.

Size of Large Gear—Diameter, 19 inches, 76 teeth. **Size of Pinion**—Diameter, 5 inches; 20 teeth; ratio, 3⅘ to 1. **Pulley**—14 inches in diameter; 5½ inches face. In ordering state diameter, face of engine pulley, H. P. of engine and speed at which it runs. Hoist will be equipped with proper pulley to correspond. **Horse Power**—2 to 6. **Speed of Hoist Pulley**—200 to 300 revolutions per minute. **Capacity**—Main drum may be run in either direction, and will hoist direct pull 1,000 pounds, and will easily hoist 1,500 pounds of hay from load, or where double line of rope is used. **Size of Drum Shaft**—1 1/16 inches. **Size of Pulley Shaft**—1 7/16 inches. **Length of Skids**—2 feet 7 inches. **Weight**—275 lbs., Single Drum Hoist. 300 lbs., Double Drum Hoist. **Floor Space**—2 feet 7 inches by 2 feet 10 inches.

8-X-4100. Price—Type "A" Single Drum Hoist **$49.75**
8-X-4102. Price—Type "B" Double Drum Hoist **65.00**
Price—Extra for Brake, single or double drum hoists **7.50**
Price—Extra for Winch Head **7.50**

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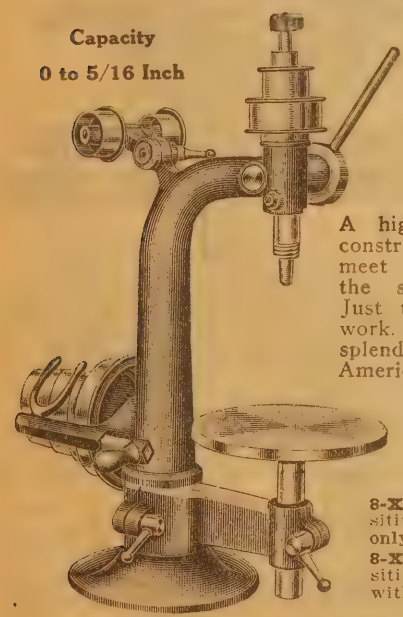
10 Inch Sensitive Drill Press

Capacity 0 to 5/16 Inch

$25.00

Specially Made for the Small Machine Shop



A high grade drill press constructed and designed to meet the requirements of the small machine shop. Just the thing for garage work. Accurately built and splendidly finished by one of America's foremost machine tool makers. The best low priced sensitive drill press ever produced at such a low price.

8-X-6042. Price of 10" Sensitive Drill Press, only **$25.00**
8-X-6043. Price of 10" Sensitive Drill Press, with 5/16" Drill Chuck **$29.00**

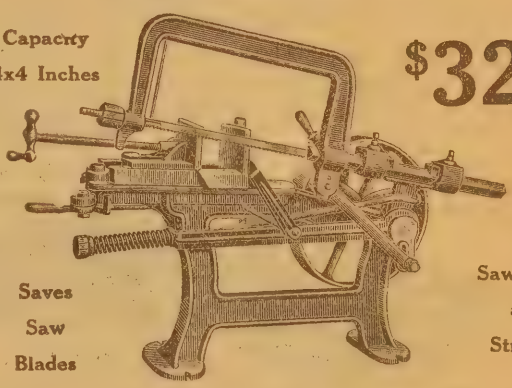
SPECIFICATION

Greatest distance from spindle to table	7½ inches
Vertical movement of spindle	2½ inches
Vertical movement of table	7 inches
Diameter of table	8 inches
Distance from center of spindle to frame	5⅛ inches
Drilling capacity	0 to 5/16 inch
Size of tight and loose pulley	1½x4 inches
Speed of driving pulley	550 revolutions
Weight	50 pounds

Rapid Power Hack Saw

Capacity 4x4 Inches

$32.50



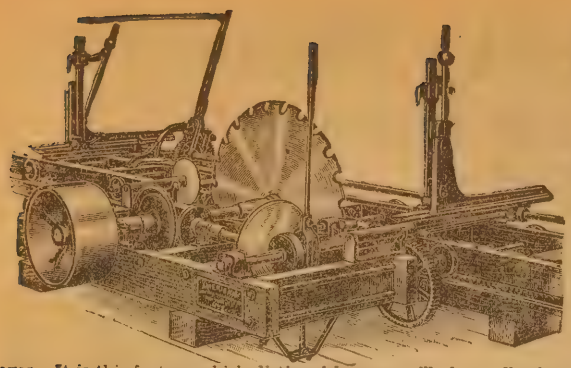
Saves Saw Blades

Saws Fast and Straight

This fast straight cutting Hack Saw is exceptionally well made to do the work and do it well; saves your saw blades. Built with all the newest and best improvements—eccentric on inner portion of crank fitted to an arm that presses against a coiled steel spring through which extends a steel rod hooked firmly to rear portion of saw frame bearing the tension, pressing the saw down on material on the draw cut. On return or push motion the tension releases. The tension on spring is regulated by a nut at the end of the spring, fitted with a quick action vice that saves time. Built to saw close to the vice.

A lever conveniently placed that raises or lowers the saw, holding it in the desired position allows free use of both hands in measuring and adjusting the material. An extension to table so material rests on both sides of saw is an important feature. The saw frames slide is made of square steel set on the quarter; the bearings of which have receptacle for oiled waste. By this construction, wear may be taken up indefinitely. Saw blade and frame will always be held rigidly in line. The drive shaft has a bronze bearing. Starter and automatic stop are conveniently placed at the front of the machine. Capacity 4x4", length of blade, 12"; size of pulley 13x2¾" Revolutions 60 to 90 per minute takes 2½" belt. Shipping weight crated 125 lbs.

8-X-7063. Price of Rapid Power Hack Saw complete as described **$29.50**



SAW MILL MACHINERY

HIGH GRADE SAW MILLS

The Husk Frame and Carriage are made of the best selected Southern Yellow Pine.

The Mandrel is made of the best grade of steel, turned and ground perfectly true, with well proportioned collars. The lug pins are fitted in an improved manner so that they can easily be removed right at the mill if they should become sheared off.

The Nut is so made that the threads cannot be stripped or bruised and the saw can easily be removed without moving the guide.

The Saw Guide is of improved design, with large throat, can be used either right or left hand, is adjustable while saw is in motion, and can be easily thrown out of the way for removing or changing saws.

Our Variable Friction Feeds are the simplest, yet most durable, perfect and effective ever devised. It is positive and responds instantly to the slightest movement or pressure of the feed ever. It is this feature which distinguishes our mills from all others, makes them so very light running and adapted to use with small power of all kinds. The sawyer with one hand has absolute control of the mill at all times, can vary the feed to correspond with the power or size and quality of timber to be cut, easing down for a hard place and instantly increasing the feed again as soon as it is past.

Head Blocks and Knees. Our head block bases are cast in one piece and of such form as to insure the greatest strength. They are accurately planed to gauges and the knee carefully fitted so that it will slide freely, yet without lost motion. They open for actual use full width as per specifications. They are heavy and strong. **Have Graduations Full Length** and provided with convenient pointer and self aligning, adjustable set shaft bearings.

The Set Works. Our "Ideal" set works with Quick Receder are now used on our Standard Mills Nos. 1 to 4 inclusive. The set works are guaranteed accurate and positive, and the receder, operated by the same lever, is of immense value as a time saver. Only a straight pull is required for either setting or receding. **All Prices F. O. B. Factory in New Jersey Without Saws.**

SPECIFICATIONS AND PRICES

Specifications of No. 1 Standard Saw Mill With Rack and Pinion Carriage Drive

Husk frame, 7' long, 3' wide; timbers, 3½"x7½".
Mandrel, 2 5/16" diameter, 4' 4" long with pulley 20"x10".
Length of carriage, 16', width, 26".
Length of rack beam, 22'.
Size of carriage timbers, 3½"x5½".
Number of trucks, 4, with 6" wheels and 1⅛" axles.
Length of steel track, 40'.
Number of head blocks, 2, with dogs.
Head blocks, open, 34".
Length of set shaft, 14'.
Weight of mill, 2,800 lbs.
Capacity 7,000 to 8,000 feet per day.
No. 8-X-2921.
Price..... **$350.00**

Specifications of No. 2 Standard Saw Mill With Wire Cable Carriage Drive

Husk frame, 7' 6" long, 3' 6" wide, timbers, 3½"x9½".
Mandrel, 2 5/16" diameter, 5' long, with pulley 20"x10".
Length of carriage, 20'; width, 30".
Length of rack beam, 26'.
Size of carriage timbers, 3½"x5½".
Number of tracks, 6, with 7" wheels and 1¼" axles.
Length of steel track, 48'.
Number of head blocks, 2, with dogs.
Head blocks, open, 38".
Length of set shaft, 16'.
Weight of mill, 3,600 lbs.
Capacity, 10,000 feet per day.
No. 8-X-2920.
Price..... **$475.00**

Specifications of No. 3 Standard Saw Mill With Wire Cable Carriage Drive

Husk frame, 8' long, 4' wide; timbers, 4½"x11½".
Mandrel, 2 7/16" diameter, 5' 6" long with pulley 20"x12".
Length of carriage, 24', width 36".
Length of rack beam, 32'.
Size of carriage timbers, 4½"x6½".
Number of trucks, 6, with 8" wheels and 1 7/16" axles.
Length of steel track, 56'.
Number of head blocks, 2, with dogs.
Head blocks, open, 44".
Weight of mill, 4,700 lbs.
Capacity, 12,000 feet per day.
No. 8-X-2922.
Price..... **$575.00**

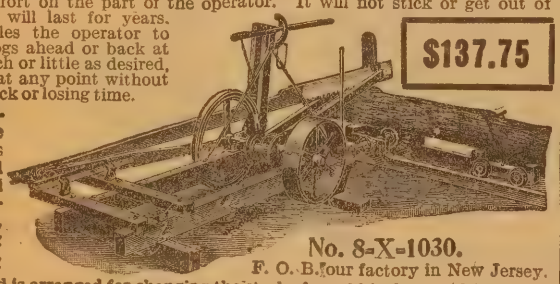
Friction Feed Drag Saw

The Main Frame is 26 inches wide, 8½ feet long and is made of 3½x5½ inches seasoned hard wood strongly framed together, securely bolted and braced.

The Track is 27 inches wide, 16 feet long, made of 2¼x4 inch timbers, well framed together.

The Friction Feed is very simple, yet positive and effective. It will start, stop or reverse, instantly by very slight motion of the feed lever, without any effort on the part of the operator. It will not stick or get out of order and will last for years. This enables the operator to feed the logs ahead or back at will as much or little as desired, and stops at any point without running back or losing time.

$137.75



No. 8-X-1030.
F. O. B. our factory in New Jersey.

The Balance Wheel is large and heavy and counterbalanced, imparting a strong, steady motion, and is arranged for changing the stroke from 16 inches to 20 inches or 42 inches.

Price, complete with 24x6 pulley..... **$137.75**
Price, complete with T. & L. pulleys..... **147.75**
Price, complete without power feed but with hand ratchet feed..... **128.50**

The Log Truck is very substantial, having steel axles and two dogs for securely holding the logs.

The Saw is raised with one hand and the friction feed operated with the other, thus changing and setting for a new cut without slowing down or stopping. A strong, reliable saw guide is also provided.

Unless otherwise ordered, each machine is furnished complete with 24x6-inch driving pulley, long truck, power rolls, tumbling rod with two Universal Couplings, 16 feet of track and one 5 ft. 6 in. saw.

We can supply this Drag Saw without power feed and with a Ratchet Lever to operate the feed rolls, thus making a most desirable hand feed machine at very low price.

Capacity: 30 to 40 cords of wood per day, depending on kind of wood, power and speed.

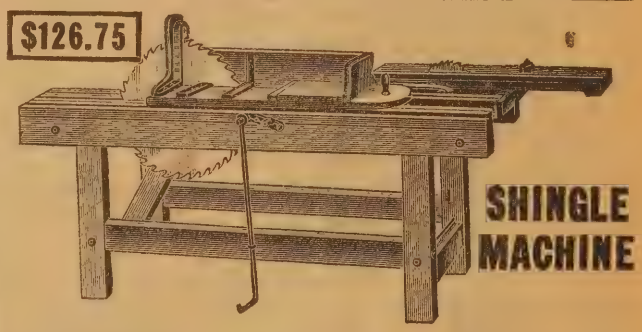
Power required. Two to four horse power will operate to good advantage; more power will give machine greater capacity.

Speed recommended. 125 to 175 strokes per minute.

Length of stroke may be adjusted to 16 inches, 20 inches of 24 inches.

Weight complete, 1,150 pounds. Weight, packed for shipment, 1,300 pounds. Weight packed for export, 1,450 pounds, 51 cubic feet.

$126.75



SHINGLE MACHINE

The Carriage is very substantial and provided with a strong iron yoke that will admit saws up to 36 inch diameter. The underside is fitted with gibs, planed to fit the iron track to which they hold the carriage securely. These gibs are slotted to provide adjustment and to take up lost motion.

The thickness of shingle is regulated by an **adjustable tilting Device** in the center board, which can be removed for cutting box boards, etc. The center board is adjustable to regulate the thickness of box boards and may be removed entirely for bolting or squaring shingle blocks. No separate shingle block bolter is required. Shingles drop out underneath as they are cut.

Power Feed is provided which is thrown into gear by pressure of the foot on the treadle, and the machine can be used either with hand or power feed.

The Mandrel is steel, with 6 inch collars and runs in self-oiling boxes, connected by heavy yoke with adjusting screw for regulating the lead of the saw.

An edger and knot saw is provided which has an 8-inch saw and a convenient gauge, insuring square, straight edge shingles.

Larger saw for bolting the stock can be furnished, when desired, at additional cost. 5,000 to 10,000 shingles per day can easily be cut. Experts have done more.

The machine will handle square, round, or split blocks up to 24 inches long.

Furnished complete, with 24-inch shingle saw, 8 inch edger saw and feed and edger belts.

Dimensions:

Frame, 7' long, 2'5" wide.
Power feed, 24".
Driving Pulley, 6"x6".
Power required, 4 to 8 H. P.
Carriage, 3'8" long, 13" wide.
Main Mandrel, 1 7/16".
Weight, with edger, net, 625 lbs.; gross, 750 lbs.
Speed of 24" Saw, about 1,200 revolutions.

Shipped from factory in New Jersey.

No. 8-X-2934. Price with edger..... **$126.75**
No. 8-X-2935. Price, without edger..... **$117.00**
For making machine to cut 36-inch long, extra..... **16.95**

Get Our Special Book on Machinery—Just Out

Rip and Cut-off Saw

Strong, substantial and durable machine fitted with an improved safety guard, designed for heavy shop and factory use, and for handling all ordinary work.

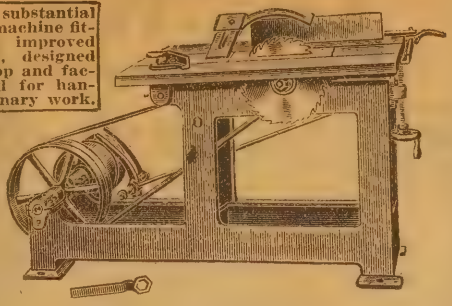


Table The table on this machine is hinged at back of frame on 1 in. steel shafting, and the rise and fall at the front is regulated by screw and a wheel. The table is made of iron in one piece, strongly built, planed perfectly smooth. The cut-off or mitre gauge slides in 2 grooves, extending the entire length of the table, one on each side of the saw line. It will mitre to 45 degrees either way.

Frame This is cast of one solid piece, very strongly built and well proportioned.

Saw Mandrel The mandrel has well babbitted bearings set in top of the solid frame, so that vibration of saw is avoided. Journal caps adjustable for wear are held in place by four cap screws. Pulley on mandrel has 47-in. face, machined all over. Mandrel is steel 1⅜ in. diameter by 24 in. long.

Saw is 12 in. in diameter and projects 3 in. above table when level. It is easily removed by releasing table or removing throat piece clamp. Collar is 4 in. in diameter. Saws up to 14 in. diameter can be used.

Journal Bearings Are all fitted with oil pockets and dustproof self-closing oilers. They have generous wearing surface, are heavily backed and made with caps to take up wear.

Safety Guard is a feature not found on any other machine, and a very desirable feature. It is attached to metal guard over saw, serving to protect the operator from injury.

Counter Shaft is 30 in. long. It is supported in long bearings at end of solid frame. Tight and loose pulleys are 10 in. in diameter by 5 in. face and should be speeded 650 revolutions per minute to give same a speed of 3,000 revolutions.

Dimensions of Saw Table

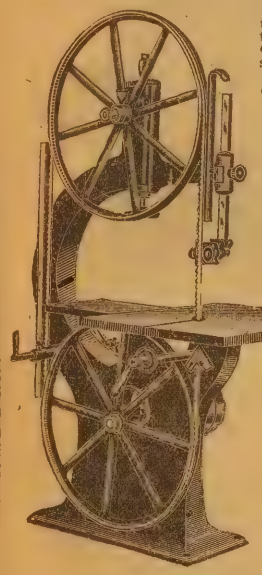
Floor space, 41 in. x 66 in.
Height of table, 32 in.
Size of table, 31 in. x 38 in.
Size of mandrel, 1⅜ in. x 24 in.
Size of mandrel hole for saw, 1 in.
Diameter of saw, 12 in.
Distance of saw to fence, 18 in.
Vertical travel of saw above table, 3 in.
Journal bearings on saw mandrel, 3½ in. long.
Journal bearings on countershaft, 5 in. long.

Regular equipment furnished: 1 12-in. saw, either cut-off or ripped, 1 cut-off fence, 1 ripping fence, 1 nut wrench for mandrel and one safety guard for saw.

8-X-100. Price Saw Table complete.
Weight, 875 pounds..... **$245.00**

8-X-101. Boring attachment, for Saw Table.....$55.00

POWER BAND SAWS



Band saws are very much alike in the work they perform, but there is a vast difference in their durability and convenience of operation. Our band saws include the latest time and labor-saving attachments as follows:

New iron table, plain, perfectly smooth which cannot warp as do wooden tables. A belt shifter that can be used either above or below the pulleys. It is easily within reach of the operator's left hand instead of low-down under the table.

An upper wheel adjustment on same side of machine as the operator when at work.

The up and down adjustment of the upper wheel is below instead of above said wheel and made conveniently rigid by the operator without changing his position.

The wheels are turned true and perfectly balanced. Rubber bands are securely cemented to rims. Upper wheel has up and down adjustment of several inches.

The table on the 20-in. saw can be tilted for angle sawing up to 45 degrees by loosening a nut with an attached lever and can be firmly locked where desired.

Dimensions of 20-In. Saw

Wheels, 20½ in. diam., 1⅜ in. face.
Size of table, 18 in. x 22 in.
Size of base, 11½ in. x 23 in.
Size of pulleys, 7 in. diam., 3 in. face.
Saw blades, 10 ft. 5 in. long, ½ in. wide.
Floor space, 24 in. x 30 in.
Distance between saw and frame, 20½ in.
Height under saw guide when raised, 9 in.
Height over all, 67 in.
Speed to run, 300 to 400 revolutions.

Regular equipment furnished: Two plain guides, brazing clamp and tongs, piece brazing material and one blade ¼ in. wide, ready for use.

8-X-14. Price 20-in. saw with tight and loose pulley, weight 390 lbs. **$85.00**

Extra saw blades, 10 ft. 5 in. by ¼ in., each.....$3.25
Wright's patent non-friction table. Saw guide extra..... 12.00

Dimensions of 26-In. Saw

Wheels, 26½ in. diam., 1½ in. face.
Size of table, 22 in. x 26 in.
Size of base, 13½ in. x 28 in.
Size of pulleys, 10 in. diam., 3 in. face.
Saw blades, 13 ft. 9 in., ⅜ in. wide.
Floor space, 30 in. x 40 in.
Distance between saw and frame, 26½ in.
Height under saw guide when raised, 10½ in.
Height over all, 79 in.
Speed to run, 300 to 400 revolutions.

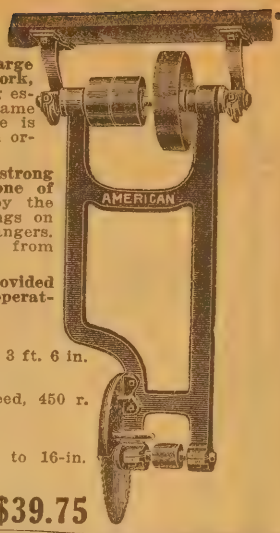
Regular equipment furnished: Wright's guide above table, plain guide below table, brazing clamp and tongs, brazing material and one ⅜-in. blade ready for use. Choice of any width blade up to 1 in.

8-X-15. Price 26-in. saw with tight and loose pulley; wt., 700 lbs. **$155.00**

Extra saw blades, 13 ft. 9 in. by ⅜ in., each.....$ 4.25
Extra for ripping gauge..... 17.50

Write for Prices on Larger Sizes

Swing Cut-off Saws



This Machine can be used for a large variety of light work, and is especially useful in woodworking establishments where a large, heavy frame is unnecessary. The length of frame is such that it may be suspended over an ordinary work bench.

The Frame is of solid cast iron, strong and very rigid. None of the weight of the frame is borne by the shaft or bearings, as the frame swings on trunnions which are carried by the hangers. The mandrel and pulley are turned from solid steel.

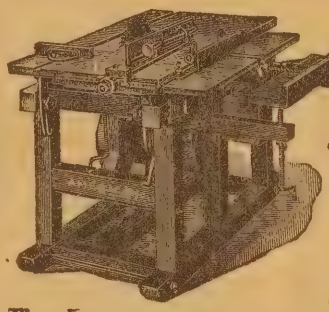
The Guard for the saw is provided with a handle for operating the frame.

Dimensions:

Length from countershaft to mandrel, 3 ft. 6 in.
Drop of hangers, 8 in.
Diameter of countershaft, 1 7-16 in.
Tight and loose pulleys, 6x3 in. Speed, 450 r. p. m.
Drive pulley, 12x3 in.
Mandrel pulley, 3x3 in.
Takes saws with 1-in. hole and up to 16-in. diameter.
Shipping weight, 200 pounds.

8-X-1000.
Price, complete except saw..... **$39.75**

CONTRACTORS PORTABLE VARIETY WOODWORKER



A combined Rip and Cut-off Saw Bench with Boring Attachment, Hollow Chisel Mortiser and Jig Saw Attachment. A 6-inch Jointer and Dado Heads and with Gasoline Engine or Electric Motor of ample power, mounted in the frame, directly under the table, and belted direct to the arbor.

Particularly adapted to the use of Engineers, Builders, Contractors, Carpenters, Concrete Workers, Lumber Yards, Millwrights and Wheelwrights, to be used right on the job for doing light and medium mill work.

The Frame is made of seasoned hardwood, accurately framed and strongly bolted together, insuring strength, rigidity and durability.

The Top is iron, 54 in. x 30 in., accurately planed and strongly hinged in the rear of the frame.

Adjustable Ripping Gauge is furnished, which has a tilting fence for bevel sawing, and has rapid, fine adjustment and locking device for securing it at any point. It opens to 14 inches from the saw.

The Jointer or Planer is entirely separate from the top of the machine and always ready for use without making any changes. It has a steel cutter head fitted with two 6-in. knives and slotted on two sides to receive Matcher Bits or Moulding Cutters for working a large variety of shapes. Safety Head can be furnished instead, if preferred, without extra cost. The tables are 7½ inches wide, 43 inches long, and are adjustable to any desired position. An adjustable fence is provided, which tilts to any desired level for chamfering, etc. The Jointed Head is removable, to permit the use of the Sander Drum. A Jointer Guard is furnished free.

The Hollow Chisel Mortiser is one of the most valuable features of this machine. It will work bits from ⅜ in. to ¾ in. and cuts a clean, smooth mortise with square corners and accurate to size. The table has a vertical adjustment of 3½ inches and a travel of 4 inches in line with the spindle, and is provided with a foot treadle for feeding the work to the bit and a coil spring for the return motion. (One ⅜-in. bit is furnished with the machine.)

The Boring Machine The Mortiser is also used as a Boring Machine by simply removing the mortising chisel and submitting a regular boring bit. When so used the table can have a movement of 6 inches in line with the spindle by changing the pin in the link under the table. When the Hollow Chisel Mortiser is not wanted the machine may be furnished with a plain Boring Table. This has a travel of 6 inches in line with the spindle and a vertical adjustment of 3½ inches. The bits have 6-in. twist and ½-in. shank and are held in the arbor by a hollow safety set screw.

The Arbor is steel, 1 5/16-in. diameter, with self-oiling, babbitted boxes strongly yoked together, thus insuring strength, permanent alignment and cool-running bearings. It is driven by a 3½-in. endless belt direct from the engine or motor, and a BELT TIGHTENER is provided with ADJUSTABLE SPRING TAKE-UP to insure correct tension on the belt.

The Engine is of ample power, of the most approved design of the WATER-COOLED type, STRONG, DURABLE, SIMPLE and RELIABLE. It starts easily, runs smoothly and steadily.

Electric motor can be furnished in place of the engine if preferred. Price depends on make and type of motor wanted and will be quoted on application. In requesting price, please advise what make preferred, what horsepower, what voltage, whether direct or alternating current. If alternating current, let us know whether a single, two or three-phase machine, also cycle wanted.

The Regular Equipment Consists of the Engine, with batteries, spark coil and connections. Jig Saw Attachment with belt and four blades. Endless Driving Belt, Rip and Cut-off Gauges, one 14-in. Rip Saw, one 14-in. Cut-Off Saw, one ½-in. and one ⅞-in. Dado Head; one Jointer Head with two 6-in. Knives; one each ½-in. and 1-in. Auger Bits; one ⅜-in. Hollow Chisel and Bit; one Sander Drum and one Sander Disc; one Emery Wheel with Arbor; one throat piece for Dado Heads; one throat piece for saws, oil can and wrenches. The largest saw that can be used is 16-in.

Magneto is furnished regularly with the engine equipment unless otherwise ordered, but we can furnish batteries when desired at a lower price. The Magneto, however, gives a stronger spark, makes the engine run better.

8-X-4210.
Price without power or inside belt..... **$295.00**

8-X-4220.
Price with countershaft and inside belt without power..... **$325.00**

Pump Jacks

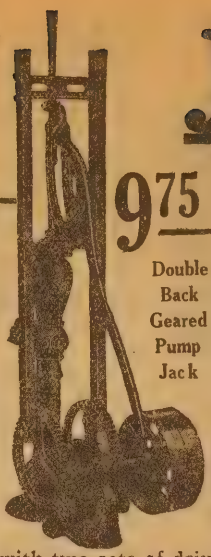
$7.25

No. 550 and No. 660 Jacks are used in connection with gasoline engines or any other belt power and can be attached to any ordinary pump stand.

The pitman rods are vertical on up stroke so there is no side wear on the piston bar of pump, and are adjustable for pump stands of different heights.

Furnished with tight and loose pulleys, 12 in. in diameter, for 2 inch belt, and should be driven from 150 to 200 revolutions per minute.

Lot No. 8-X-660
BASE JACK
Weight 80 lbs.



$9.75

Double Back Geared Pump Jack

No. 550 and No. 660 jacks have three strokes —5 inch, 7½ inch and 10 inch, and are back-geared 4¼ to 1 so the pitman rod makes one complete stroke while the pulley makes four and one-quarter revolutions.

Our No. 5 jack clamps direct to pump as shown in illustration. No. 6 jack is so constructed so as to bolt to same platform that pump is attached to and can be used on the floor, wall or ceiling. This jack we recommend where it is not possible to clamp direct to pump.

$6.25

Lot No. 8-X-550
CLAMP JACK
Weight, 70 lbs.

This type of jack is fitted with two sets of driving gears. You can readily see that it is double the strength of the single geared type, and we recommend its use on very deep wells, although it can be used on shallow wells.

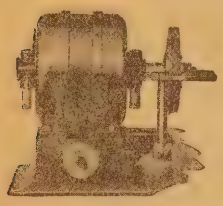
It has three strokes, 4½, 7 and 10 inches, and is back geared 9¾ to 1, so that the driving pulley makes about 300 revolutions per minute while the pump is making 30 strokes per minute.

This is a most excellent jack to use with all sizes of gasoline engines; if you have a small engine you can belt direct without reducing its power or slowing the engine down.

Pulleys are 12 inches diameter for 2-inch belt, but if these sizes do not give you the required speed other diameter pulleys can be furnished at a nominal cost. **Weight, 96 Lbs.**

Lot No. 8-X-770. Double Back Geared Pump Jack $9.75

Electric Grinding and Buffing Machines



Adapted for use on direct current or alternating current. These machines in addition to grinding and buffing can also be used with slotting saws and milling cutters, and operations such as slotting screws, milling studs, pins, etc.

Motors used on these machines are 1/6 H. P. Speed 3000 R.P.M. Enclosed and dust-proof. Complete with the following parts: One 5 in. diameter by ½ in. face emery wheel. One tool rest, attachment plug and 6 ft. of reinforced cord.

Enclosed Type—Single Speed—1/6 H.P.

Volts	Cycle	Speed	Shipping Weight	Price
110 D.C.		3000		$42.00
220 D.C.		3000	36	42.00
110 A.C.	60	3400		55.00
220 A.C.	60	3400	59	55.00

We can also furnish these machines in double end but without tool rest or emery wheel on left hand side at an additional cost of.....$10.00

KING GOVERNOR $21.00

Most sensitive and substantial Governor on the market. Equipped with POSITIVE AUTOMATIC STOPS. Sold on thirty days' trial.

16-X-2001.
Flange connection

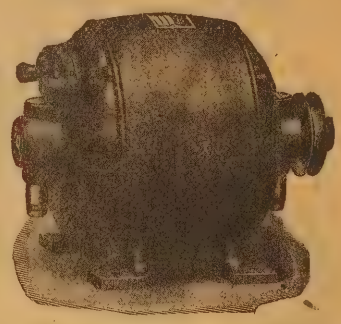
KING GOVERNORS

We guarantee that this is the most sensitive, quickest action and most durable Governor manufactured. It is neat in design and first class in workmanship and material. It will give the closest possible regulation and the least possible consumption of steam. Is built in a substantial manner, and made for every day service, the wearing parts all being made of the best metal. This Governor is equipped with automatic stop, which is positive. We sell this Governor on 30 days' trial, and if at the end of that time you do not find it entirely satisfactory you have permission to return it to us and we will promptly refund the amount paid thereon. We can furnish you either flange or screw connections. When ordering be sure and state what style connection is required, otherwise flange connection will be shipped in every instance.

16-X-2002.
Screw connection

Size of Governor	¾	1	1¼	1½	2	2½	3	3½	4	4½	5
Diam. of Base Flange	4½	5	5	5½	7	8	9	9	10	11	12
Diam. of Side Flange	4½	5	5	5½	6½	7	8	8	[illegible]	9½	10
Height in Inches	16½	19	22	24	28	32	34½	37	39	42	44
Radius of Balls	2⅞	3⅛	3½	3¾	4½	5	5⅝	5¾	5¾	6	6½
Length of Shaft	7	7½	8¼	9	12	14	16	16	16	17	17
Diam. of Pulley	1½	1¾	2	2	2½	3	3¼	3¼	3¾	4	4¼
Width of Belt	1	1¼	1½	1¼	2	2½	3	3	3	3	3
Center of Body to Side Flange	2½	3¼	3¾	3⅛	5	5½	6	7	7½	7¾	8⅜
Center of Body to Base Flange	2⅜	3¼	3⅞	4¼	4⅞	5¼	5⅞	6⅞	7	7¾	8⅜
Number of Revolutions	625	525	475	425	375	350	320	290	290	250	220
Price, each	$21.00	$24.15	$26.80	$31.00	$37.80	$50.40	$61.95	$74.55	$87.15	$100.80	$114.45

MOTORS



We have a large number of these high grade electric motors, which are available for all general purposes, and which we are offering at special reduced prices.

We guarantee these motors will deliver their rated horsepower and will guarantee to replace or repair any motor proving defective from material or workmanship within sixty days from date of shipment.

Direct Current Motors—Open Type—Continuous Service.

Horse Power	Volts	Load Speed	Winding	Price	Pulley-Inches Dia.	Face	Bore
⅛	32	1725	Shunt	$25.00			
⅛	110	1725	Shunt	24.00	2		½
⅛	220	1725	Shunt	25.00		Grooved	
1/6	32	1725	Comp.	28.50		for	
1/6	110	1725	Shunt	27.50	2	5/16"	½
1/6	220	1725	Shunt	28.50		Belt	
¼	32	1725	Comp.	33.50			
¼	110	1725	Comp.	32.50	2½		½
¼	220	1725	Comp.	33.50			

Alternating Current Motors—60 Cycles—Single Phase—Full Load Start—Continuous Service.

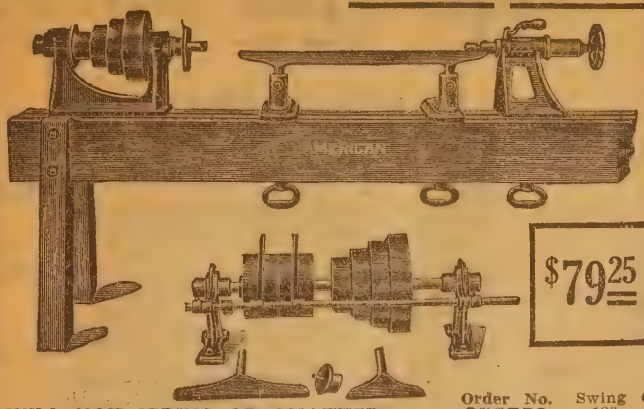
Horse Power	Volts	Load Speed	Price	Approximate Amp.	Load	Pulley—Inches Dia.	Face	Bore
⅛	110	1725	$32.25	3.0				
⅛	220	1725	33.50	1.4	2		Grooved	½
1/6	110	1725	35.00	3.4			for	
1/6	220	1725	36.25	1.7	2		5/16"	½
¼	110	1725	40.00	4.1			Belt	
¼	220	1725	41.50	1.8	2½			½

(8 ft. of Cord with Attachment Plug, $1.50 additional.)

Big Money Savings on Sharples Separators Now! See Them!!

HARRIS BROTHERS CO.
35th & Iron Streets, Chicago.

WOOD TURNING LATHES



$79.25

WILL NOT SPRING OR CHATTER WHEN RUNNING

Our Wood Lathes possess every desirable improvement and convenience they are well built, neatly finished, and will stand the hardest kind of turning.

The Head and Tail Stocks are made heavy and rigid, so as not to spring or chatter when running. The bottoms of the head and tail stocks are planed on a mandrel, so that the centers come exactly in line when fitted to the shears.

The Spindles and Centers are made of the best steel. The cone driving pulleys are made of iron. The bearings of the head stock spindle are lined with genuine babbitt.

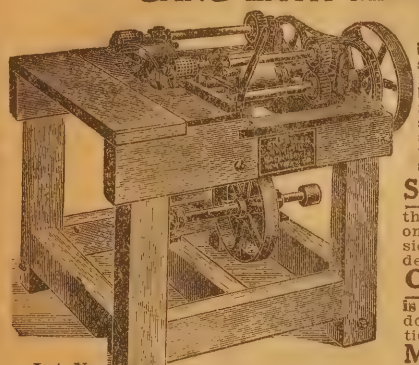
The Countershaft is complete, with shifter, and will be furnished with iron or wood cone pulleys.

The Parts Furnished with a single-end lathe, are the head and tail stocks, one each spur, and conical center, one face plate, one screw face plate, two rest stands and three tool rests of different lengths, three clamp bolts for the stands and tail stock, countershaft with shifter. The wood bench is not furnished unless specially ordered, at extra cost.

Dimensions.

Order No.	Swing	Face of Cones	Changes of Speed	T. & L. Pulleys	Speed of Countershaft	Weight	Iron Parts only
8X2750	12"	2"	4	6"x3½"	800	340	$79.25
8X2755	16"	2"	4	8"x4½"	700	430	88.00
8X2760	20"	2½"	5	10"x4½"	600	480	95.75

GANG LATH MACHINE



Lot No. 8X3500

The Mandrel is of the best grade steel, turned and polished, and runs in babbitted boxes and may be fitted for any number of saws, from three to six, as may be ordered, but usually only three saws are furnished.

Springs are provided for regulating the pressure of the rolls on the stock, and the tension may be changed as desired.

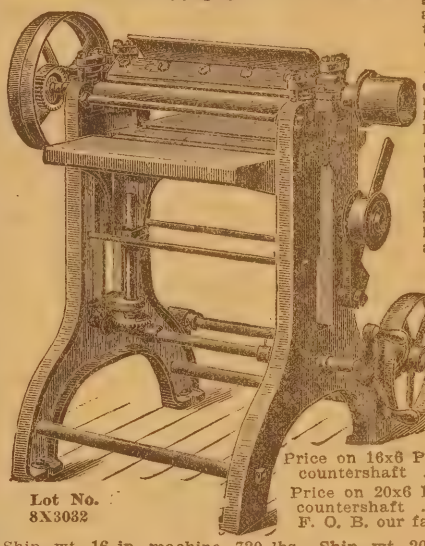
Changing Saws is very easily and rapidly done by removing a section of the table.

Machine can be fitted to cut pickets, chair stock or any small squares from 1¼x1½ in. up to 2x2 in., for which extra charge will be made.

Frame, 37 in. long, 37 in. wide, 27 in. high. Lath Saws, 10 in. Driving pulleys on mandrel, 8x8 in. Speed of lath saws, 2,700. Weight of Machine, net, 675 lbs. Weight packed for export, gross, 800 lbs. Cubic measurement, about 25 cubic feet. Capacity, 30,000 to 40,000 laths per day.

Price (with three saws)...**$185** Price (with five saws)....**$200**
Price (with four saws).... **190** Price (with six saws)..... **205**
Bolting attachments $90 extra. F. O. B. our factory in New Jersey.

WOOD PLANER



Lot No. 8X3032

Has two driven feed rolls, one in the front and one in the rear of the cutter head.

The Position of the cutter head is not changed for different thicknesses of lumber so that the driving belt remains tight though it is belted from any direction. Two speeds of feed are provided for by means of cone pulleys. All adjustments are quickly and easily made and in changing for different thicknesses of planing, no bolts or screws have to be loosened or tightened. It works hard or soft wood equally well. Built in two sizes to plane 16 in. and 20 in. wide and 6 in. thick.

Price on 16x6 Planer, with countershaft **$185.00**
Price on 20x6 Planer, with countershaft **205.00**
F. O. B. our factory in New Jersey.

Ship. wt. 16 in. machine, 720 lbs. Ship. wt. 20 in. machine, 745 lbs.

WOOD SPLITTER OR POWER AXE

8X3034

It Is Designed to withstand the strains to which such a machine is necessarily subjected, and will soon pay for itself in any wood yard or kindling wood factory where much splitting is to be done. Hard, knotty maple, oak, pine or other kinds of wood can be easily split. A single machine will split 4 or 5 cords per day. Double machine 10 to 20 cords per day.

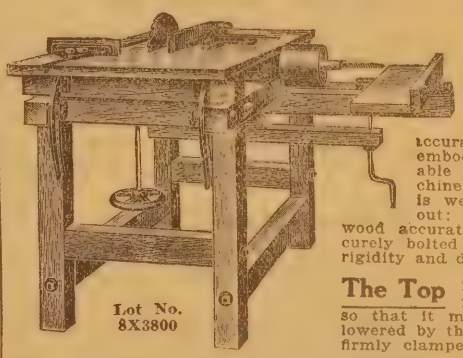
The Wood is held in an upright position by the hands of the operator, the lower end resting on the bed plate, and merely turned around as the splitting is done. It can be erected on any strong floor or timbers embedded in the ground.

Bed Plate has adjustment giving machine a range for splitting wood 8 to 18 in. long.

The Crank Shaft is made of steel and runs in babbitted self-oiling boxes. The driving pulley weighs about 250 pounds and has heavy rim so as to give plenty of momentum. It is 32x6 in., and should run 150 revolutions per minute. One to two horsepower required to operate.

Price, Single 18-in. machine..**$159.75**
Price, Double 18-in. machine.. **260.50**
Price, Single 24-in. machine.. **176.50**
Price, Double 24-in. machine.. **275.00**
F. O. B. our factory in New Jersey.
Weight, single machine, net 1,300 lbs. Gross, 1,500 lbs.
Weight, double machine, net 1,850 lbs. Gross, 2,100 lbs.

"COMBINATION" SAW BENCH



Lot No. 8X3800

Our Combination Rip and Cut-off Saw is furnished either with or without the boring attachment as ordered. The machine is strong, accurate and serviceable, embodying every desirable feature in a machine of this kind. It is well made throughout: of seasoned hardwood accurately fitted and securely bolted together, insuring rigidity and durability.

The Top is hinged to the rear of the frame so that it may be raised and lowered by the hand screw, and firmly clamped in any position.

The Mandrel is best cold rolled steel, and runs in self-oiling babbitted bearings which are securely yoked together, insuring perfect alignment. Saws up to 20 in. can be used.

Adjustable ripping and cut-off gauges are provided. The cut-off gauge works in an iron groove the entire length of the table, and may be set to cut Square or Any Angle to 45 Degrees. One 14 inch rip saw is furnished with the machine. Table is 54x30 in. Steel mandrel, 1 7-16 in., fitted for saws with 1¼ in. hole Mandrel Pulley, 6x6 in.

Price, without countershaft **$135.00**
Price with countershaft **159.75**

Thousands of Snaps like These

Low Pressure Heating Boilers

8-X-189. **2—72" Dia., 16' long Fire Box Heating** Boilers; Capacity, 12,000' Steam Radiation, 20,000' Water Radiation. Price each.....$1,000.00

8-X-190. **1—48" Dia., 16' long Fire Box Heating** Boiler; Capacity, 5,000' Steam Radiation, 8,000' Water Radiation. Price..... 500.00

8-X-191. **1—42" Dia., 16' long Fire Box Heating** Boiler; Capacity, 2,800' Steam Radiation, 4,500' Water Radiation. Price..... 375.00

8-X-192. **1—42" Dia., 10' long Fire Box Heating** Boiler; Capacity, 2,600' Steam Radiation, 4,300' Water Radiation. Price..... 350.00

8-X-193. **1—30" Dia., 7' long Fire Box Heating** Boiler; Capacity, 1,000' Steam Radiation, 1,700' Water Radiation. Price..... 175.00

8-X-194. **1—30" Dia., 6' 6" long Fire Box Heating** Boiler; Capacity, 950' Steam Radiation, 1,600' Water Radiation. Price..... 165.00

8-X-195. **1—30" Dia., 6' long Fire Box Heating** Boiler; Capacity, 900' Steam Radiation, 1,500' Water Radiation. Price..... 160.00

8-X-196. **1—27" Dia., 5' long Fire Box Heating** Boiler; Capacity, 800' Steam Radiation 1,400' Water Radiation. Price..... 150.00

Blowers

8-X-1460. **1—No. 3 American Blower, 24" high, 7" discharge.** Price.....$ 30.00

8-X-1461. **3—Sturtevant Blowers, 30" high, 6" discharge.** Price each..... 35.00

8-X-1462. **1—No. 5 Sturtevant Blower, 40" high, 9" discharge.** Price..... 55.00

8-X-1463. **1—No. 4 American Exhaust Blower, 30" high,** 8" suction, 9" discharge. Price..... 40.00

8-X-1464. **1—40" Sturtevant Exhaust Blower, 14" suction,** 14" discharge. Price..... 60.00

8-X-1465. **1—No. 3 U. S. Positive Pressure Blower, 3"** Outlet; Capacity, 100 cubic feet per minute. Pressure up to 3 lbs. Price..... 75.00

8-X-1466. **1—No. 2 U. S. Positive Pressure Blower, 2"** outlet. Capacity, 65 cubic feet per minute. Pressure up to 3 lbs..... .....

8-X-1467. **2—No. X Garden City Positive Pressure** Blowers. Capacity, 75 cubic feet per minute. 2½" outlet. Pressure up to 3 lbs. Price each..... 65.00

Baling Presses

8-X-865. **1—All-steel power baling press, size 23"x** 36"x54". Suitable for baling scrap tin plate, copper wire, paper, rags, shavings, and all products requiring bailing, arranged to be geared to motor or can be belt-driven. Mfg. by Minnich Machine Works. Price..... 400.00

Tank Wagons

8-X-100. **1—350-gal. tank wagon, with three compart-**ment oil tank. Price.....$ 125.00

8-X-101. **1—450-gal. tank wagon, with three compart-**ment oil tank. Price..... 150.00

8-X-102. **1—550-gal. tank wagon, with three compart-**ment oil tank. Price..... 175.00

Scrapers

8-X-1468. **2—Wheeled Scrapers. Size of box, 44" wide,** 40" long, 15" deep. Steel wheels. Price each .....$ 55.00

Concrete Mixers

8-X-1952. **1—No. 1 Chicago Concrete Batch Mixer.** Portable, mounted on wheels; capacity, 10 cubic ft. mixed material. Equipped with steam engine and boiler. Plain feed spout. Swinging discharge spout. Price.....$ 600.00

8-X-1953. **1—No. 2 Ransome Concrete Batch Mixer.** Portable, mounted in trucks, capacity 18 cubic ft. mixed material, drum 60" dia., 42" wide. Equipped with steam engine and boiler. Plain feed spout. Swinging discharge spout. Price..... 600.00

Road Roller

8-X-5974. **1—10-ton 3-wheel steam road roller. Single** cylinder engine. Front roller wheel 38" dia., 54" wide. Rear roller wheels 70" dia., 22" wide. Manufactured by Port Huron Engine & Thresher Co. Price..... 1,200.00

Hoisting Engine

8-X-272. **1—30 H. P. 8"x10" double cylinder single** friction drum steam hoisting engine. Heavy duty type. Diam. of drum, 16". Length between flanges, 19". Diam. of flanges, 36". Skeleton frame without boiler. Price.....$ 700.00

8-X-290. **1—10 H. P. 5"x6" Lidgerwood double cylinder** single friction drum steam hoisting engine. Diam. of drum, 10". Length between flanges, 20". Diam. of flanges, 22". Complete with boiler, mounted on same base. Price..... 675.00

8-X-291. **1—8 H. P. 4½"x6" Stroudsburg double cylin-**der, single friction drum steam hoisting engine. Diam. of drum, 9". Length between flanges, 18". Diam. of flanges, 18". Skeleton frame without boiler. Price..... 325.00

8-X-579½. **1—7 H. P. 4"x5" American Independent Slew-**ing Engine, double cylinder, single drum. Diam. of drum, 12". Length between flanges, 20". Diam. of flanges, 19". Equipped with reversing throttle valve. Skeleton frame without boiler. Price 300.00

8-X-579. **1—12 H. P. 7"x8" single cylinder vertical** steam hoisting engine, with single friction driven drum, 8" diam., 22" between flanges. Diam. of flanges, 20". Equipped with winch head. Skeleton frame without boiler. Price 300.00

8-X-275½. **2—5,000-lb. capacity Olds single drum gaso-**line engine driven mine hoists. Drums 42" dia., 37" between flanges. Three hoisting speeds, 600, 400 and 180 ft. per minute. Equipped with four-cylinder gasoline engines. Size 4½x4¾". Price each..... 1,000.00

Concrete Carts

8-X-252. **17½-yd. capacity Controllable Center Dump.** Horse-drawn concrete carts. Size 36" wide, 42" long, 26" deep, round bottom, all steel construction, wheels 44"x5". Suitable for handling concrete, stone, sand, gravel, cinders, etc. Price each..... 65.00

8-X-1469. **25,000 ft. 20" diam. Spiral Pipe, No. 10 gauge.** Lengths 16' to 25'. Plain ends. Price per foot 2.00

Fire Doors

8-X-1470. **12—Underwriters' Tin Clad Fire Doors. Size** 76½" high, 53¾" wide. These doors are in steel frames, which are made of 5" channel iron. Dimensions of frames on outside, 79¾" high, 57½" wide. Equipped with triple spring latches. Price each..... 50.00

Hydraulic and Screw Jacks

8-X-429

1—30-ton Henderer Sons, height 22", lift 9". Price each..$60.00
1—30-ton Henderer Sons, height 27", lift 12". Price each.. 60.00
1—25-ton Henderer Sons, height 27", lift 12". Price each.. 50.00
8—20-ton Henderer Sons, height 27", lift 12". Price each.. 40.00
1—20-ton Joyce Gridland, height 33½", lift 18". Price each 40.00
1—20-ton Henderer Sons, height 23½", lift 9". Price each. 40.00
1—20-ton Dudgeon, height 26", lift 12". Price each..... 40.00
1—15-ton Watson & Stillman, claw lift, height 24", lift 12". Price each 30.00
1—15-ton Dudgeon, double pump jack, height 26", lift 18". Price each 30.00
1—15-ton Dudgeon, height 39", lift 20". Price each..... 30.00
1—15-ton Dudgeon, height 36", lift 24". Price each..... 30.00
2—15-ton Dudgeon, height 32", lift 18". Price each..... 30.00
2—15-ton Dudgeon, height 25", lift 12". Price each..... 30.00
1—15-ton Lyon, height 25", lift 12". Price each..... 30.00
1—10-ton Dudgeon, height 37", lift 24". Price each..... 25.00
3—10-ton Dudgeon, height 25", lift 12". Price each..... 25.00
5—10-ton Joyce Gridland, height 25¾", lift 12". Price each 25.00
1—10-ton Henderer Sons, height 26", lift 12". Price each.. 25.00
3—10-ton, no name, height 25", lift 12". Price each..... 25.00
3—10-ton, no name, height 18¼", lift 6". Price each..... 25.00
1— 7-ton Dudgeon, height 24¾", lift 12". Price each..... 18.00
8— 4-ton Henderer Sons, height 24¾", lift 12". Price each 14.00

X-682. **6—Ratchet Jack Screws. Dia. screw 2¼", raise** 14". Height over all, 26". Capacity, 25 tons. Mounted on adjustable bases. Price each..... 12.00

No. 682½. **2—30-ton capacity Simplex geared lever jacks.** 27" high, 16" lift. Price each..... 40.00

in our Big Stock of Equipment!

Belt Driven Power Water Pumps

8-X- 987. **1—Figure No. 1140—Goulds Single Acting Triplex Vertical Plunger Pump.** Diameter cylinders 7", stroke 8". Capacity 250 gallons per minute. Speed 63 revolutions. 4" suction, 4" discharge. Working pressure 130 lbs. Horse Power required to operate, 19. Equipped with tight and loose pulleys, 30" diameter, 6" face. Price $600.00

8-X-1010. **1—Deming Single Acting Triplex Vertical** Plunger Pump. Diameter cylinders 5", stroke 6". Capacity 100 gallons per minute. Speed 60 revolutions. 3" suction, 2½" discharge. Working pressure 100 lbs. Horse power required to operate, 6. Equipped with tight and loose pulleys. 24" diameter, 5" face. Price... 275.00

8-X- 886. **1—1500 lb. Pressure Vertical Triplex Belt** Driven Hydraulic Pump. Diameter plungers 1", stroke 4½". Capacity 2 gallons per minute, 1¼" suction, 1" discharge. Speed 50 revolutions. Horse power required to operate, 3. Gear rates 5 to 1. Tight and loose pulleys, 15" diameter, 2½" face. Manufactured by Rumsey Pump Company. Price..... 150.00

8-X- 957. **1—Kingsford Horizontal Side Suction Centrifugal** Pump, 24" suction, 24" discharge. Capacity 20,000 gallons per minute. Horse power required for each foot of lift, 6.3 belt pulley. 32" diameter, 20" face. Price..... 950.00

8-X- 990. **1—Fairbanks Morse Horizontal Side Suction** Centrifugal Pump. 10" suction, 8" discharge. Capacity 2,000 gallons per minute. Horse power required for each foot of lift, 1. Belt pulley 20" diameter, 12" face. Price..... 250.00

8-X- 439. **1—American Horizontal Side Suction Centrifugal** Pump. 8" suction, 8" discharge. Capacity 2,000 gallons per minute. Direct connected on same base to 20 H.P. Westinghouse Motor. 110 volt, direct current, speed 1050 revolutions. Complete with starting box. Price 450.00

8-X-1056. **1—Morris Centrifugal Sand & Dredge Pump,** 8" suction, 8" discharge. Horse power required for each 10' of lift and elevation, 15. Belt pulley 24" diameter, 14" face. Price.... 300.00

8-X-1069. **1—Swaby Horizontal Side Suction Centrifugal** Pump, 8" suction, 6" discharge, capacity 1100 gallons per minute. Horse power required for each 10' of lift and elevation, 3. Belt pulley 14" diameter, 12" face. Complete with hand primer. Price..... 225.00

8-X- 521. **1—DeLaval Centrifugal Pump, 8" suction, 8"** discharge. Minimum capacity 800 gallons per minute. Direct connected to DeLaval Steam Turbine, speed 2400 revolutions. Steam inlet 1½". Type h.p., 8. No. 2025. All mounted on one case iron base. Price..... 300.00

8-X-1057. **5—Horizontal Centrifugal phosphate Mining** pumps, 8" suction, 8" discharge. Mounted on cast iron sub base, arranged for Direct Connection to engine or motor. Manufactured by Tampa Foundry & Machine Company. Price each 375.00

8-X-1041. **1—Two-stage Horizontal Centrifugal pump,** 6" suction, 5" discharge, capacity 500 gallons per minute. 100 lbs. pressure. Fitted with belt pulley, 14" diameter, 12" face. Pump is mounted on cast iron extended base and can be direct connected to motor or steam engine on same base. Manufactured by Keystone Driller Company. Price 300.00

8-X- 881. **1—Swaby Two-stage Horizontal Centrifugal** Pump, 3" suction, 3" discharge, capacity 120 gallons per minute. Pressure 100 lbs. Belt pulley 8" diameter, 8" face. Price..... 95.00

8-X- 887. **1—Swaby Two-stage Horizontal Centrifugal** Pump, 2" suction, 2" discharge, capacity 70 gallons per minute. Pressure 100 lbs. Belt pulley 6" diameter, 6" face. Price..... 50.00

8-X- 885. **1—Goulds Horizontal Centrifugal Pump, 3"** suction, 2" discharge, capacity 120 gallons per minute. Pressure 30 lbs. Belt pulley 6" diameter, 6" face. Price..... 45.00

8-X-431½. **3—Advance Horizontal Centrifugal Pumps, 2"** suction, 1½" discharge. Capacity 70 gallons per minute. Pressure 30 lbs. Belt pulley 4" diameter, 4" face. Price each..... 35.00

8-X-1036. **1—American Vertical Centrifugal Pump, 5"** suction, 4" discharge, capacity 470 gallons per minute. Direct connected to 10 H.P. Lincoln vertical shaft motor, 110 volt, direct current, speed 1300 revolutions. Equipped with discharge pipe and shaft to set in 5' pit. Will send blue print on request. Price..... $350.00

8-X-1044. **1—Vertical Suction Centrifugal pump, 8" suction,** 8" discharge, capacity 2000 gallons per minute. Price..... 175.00

8-X-1045. **3—Vertical Suction Centrifugal Pumps, 6"** suction, 6" discharge, capacity 1100 gallons per minute. Price each..... 150.00

8-X-1045½. **3—Vertical Suction Centrifugal Pumps, 5"** suction, 4" discharge, capacity 470 gallons per minute. Price each..... 75.00

8-X-1044½. **4—Vertical Suction Centrifugal Pumps, 4"** suction, 3" discharge. Capacity 265 gallons per minute. Price each..... 65.00

8-X- 522. **1—Rotary Geared Force Pump, capacity 60** gallons per minute. 3" suction, 3" discharge. Speed 100 revolutions with belt pulley 12"x 3½". Price 50.00

Electric Equipment

8-X-1020. **1—15 H.P. Northern Elec. Co. direct current** motor, 110 volt, 120 amp., speed 700 revolutions, with starter, base and pulley. Price... 290.00

8-X- 602. **1—10 H.P. Western Elec. direct current motor,** 110 volt, 80 amp., speed 950 revolutions, with starter, base and pulley. Price..... 190.00

8-X- 603. **1—10 H.P. Bullock direct current motor, 120** volt, 80 amp., speed 1450 revolutions, with starter, base and pulley. Price..... 185.00

8-X- 606. **3—6 H.P. C. & C. direct current motors, 110** volt, 46 amp., speed 900 revolutions, with starter, base and pulley. Price each..... 95.00

8-X- 609. **2—6 H.P. Bullock direct current motor, 120** volt, 46 amp., speed 1050 revolutions, with starters, bases and pulleys. Price each..... 95.00

8-X- 702. **1—2 H.P. T. & H. 220 volt direct current mo-**tor, speed 1250 revolutions, with starting box, base and pulley. Price..... 60.00

8-X- 701. **1—½ H.P. Watson 220 volt direct current mo-**tor. Speed 900 revolutions, with starting box, base and pulley. Price..... 40.00

8-X-1005. **1—½ H.P. Triumph Elec. A. C. motor, type** N4, 220 volt, 3-phase, 60-cycle. Speed 1140 revolutions, with starter base and pulley. Price 40.00

8-X- 600. **2—½ H.P. Westinghouse A. C. motor, type** C. C. L., 220 volt, 3-phase, 60-cycle. Speed 1700 revolutions, with starters, bases and pulleys. Price each..... 35.00

8-X-1450. **1—1 H.P. Westinghouse, 220 volt, 3-phase, 60-**cycle motor, speed 1700 revolutions, with starting switch, base and pulley. Price..... 50.00

8-X-1451. **1—2 H.P. Westinghouse, 220 volt, 3-phase,** 60-cycle motor, speed 1700 revolutions, with starting switch, base and pulley. Price..... 65.00

8-X-1452. **1—3 H.P. Westinghouse, 220 volt, 3-phase, 60-**cycle motor, speed 1700 revolutions, with starting switch, base and pulley. Price..... 80.00

8-X-1452. **1—1½ H.P. Watson, 220 volt, 2-phase, 60-cycle** motor, speed 1720 revolutions, with starting switch, base and pulley. Price..... 50.00

8-X-1453. **1—50 Light 1-K.W. Cushman Generator. 32-**42 volt, direct current, 31 amp., speed 1800. Price 60.00

8-X- 625. **2—Electric driven washed air ventilating out-**fits. Mfg. by Garner Ventilating Co. 15" square air outlets, 1" water pipe connections. Equipped with ¾ H.P. A. C. motors, 220 volt, 3-phase, 60-cycle, speed 870 revolutions. Price each 125.00

8-X-646½. **2—General Electric Transformers. Capacity** 1000 Watts. Form G. Volts 1080/2080—115/230—60-cycle. Price each..... 17.50

8-X- 644. **10—18" electric desk fans, 110-220 volt, direct** current. Price each..... 16.00

8-X- 624. **1—18" Westinghouse electric wall fan, 220** volt, direct current. Price..... 20.00

BELTING

Owing to our enormous business in this line, we carry a large and complete stock of Belting and Supplies, insuring our customers prompt shipment of their orders. We earnestly advise that you note carefully the general purpose for which we recommend the use of our various grades and order accordingly.

RUBBER BELTING

possesses many advantages. The cotton duck being protected by the rubber cover, the belt is not affected by dampness, but will run in damp places. It is uniform in thickness and strength and will always run straight on the pulleys. Our rubber belts are thoroughly stretched in making and therefore do not stretch materially when placed in service. Adhere closely to the pulley, giving the best transmission of power.

"Invincible" Brand

3-X-20. We recommend this belt for all heavy power transmission. It is used extensively in sawmills, quarries and other places where a belt is subjected to hard usage. This belt is one of the best on the market.

Width, In.	4-ply, Per ft.	5-ply, Per ft.	6-ply, Per ft.
4	$0.48	$0.58	....
5	.58	.73	....
6	.70	.87	$1.05
7	.81	1.03	1.23
8	.88	1.09	1.32
9	.99	1.23	1.48
10	1.09	1.36	1.63
12	1.32	1.63	1.96
13	....	1.78	....
14	1.54	1.92	2.31
15	1.65	2.05	....
16	1.75	2.20	2.64
18	....	2.48	2.97
20	....	2.74	3.28
22	....	3.00	....
24	....	....	3.93

TENSILE STRENGTH UNEQUALED — ECONOMICAL — WILL GIVE FIRST CLASS SERVICE

—FOR HEAVY WORK—

"Standard" Brand

3-X-1. This brand is recommended only for light work, such as all work necessary on a farm. This is the belt for a farmer or anyone who has light or medium work.

Width, Inches	3-ply, Per ft.	4-ply, Per ft.
1	9c	...
1¼	12c	...
1½	14c	...
2	18c	21c
2½	21c	26c
3	26c	30c
3½	30c	35c
4	32c	38c
4½	...	42c
5	...	47c
6	47c	56c

SMOOTH UNIFORM SURFACE — FOR LIGHT WORK IT CAN'T BE BEAT

"Premier" Brand

3-X-3. Brand new and the best general purpose belt on the market for medium power and conveying purposes. We do not recommend this belt for heavy work where belting is required to run constantly and transmit heavy horsepower, but for other general purposes it will give you first-class service.

Width, Inches.	4-ply, Per ft.	5-ply, Per ft.	6-ply, Per ft.
3	$0.32	....	....
4	.41	....	....
4½	.45	....	....
5	.50	$0.62	....
6	.60	.75	$0.90
7	.69	.89	....
8	.77	.95	1.13
9	.84	....	....
10	.95	1.15	1.41
11	1.02	....	....
12	1.13	1.41	1.68
13	1.22	1.53	....
14	1.31	1.64	1.97
15	1.41	1.76	....
16	1.50	1.88	....
18	1.68	....	....

CANVAS BELTING

Endless Canvas Belting

3-X-11. Brand new and guaranteed. These belts are especially recommended for threshers or for any other purpose where a belt is exposed to the weather. Actual lengths are three feet shorter than specified, as it requires the price of three feet for lap and labor in making belts endless.

Width, Inches	4-Ply 50 ft.	75 ft.	100 ft.	125 ft.	150 ft.
5	$26.55	$38.45	$50.85	.....	.....
6	30.85	44.95	59 55	$74.30	.....
7	35.20	51.45	67.70	83.95	$100.20
8	39.55	57.95	76.35	94.75	112.65
9	.....	.....	.....	.....	131.10

Width, Inches	125 ft.	150 ft.	5-ply 160 ft.
7	$105.05	$125.10	.....
8	118.05	141.35	$150.00
9	.....	155.40	165.15

Width, Inches	150 ft.	160 ft.	6-ply
8	$159.50	$180.30	.....
9	186.85	199.55	.....

"HARRIS" Brand

3-X-9. This belt is the most serviceable for use outdoors, as it can not be injured by steam or water and can be run in places where the heat would injure a rubber or leather belt. It is made of heavy canvas woven very hard, giving it great strength. The rows of stitching are very close so that the plies will not separate. It is painted red with a special composition which makes it waterproof and it is not affected by heat or cold. This belt is thoroughly stretched during the process of manufacture and is adaptable for sawmills, mines, quarries, etc.

Width, Inches	4-ply, Per ft.	6-ply, Per ft.
1½	$ .18	....
2	.24	....
2½	.29	....
3	.33	....
3½	.38	....
4	.44	$ .65
4½	.48	....
5	.51	.80
6	.62	.92
7	.71	....
8	.78	1.19
9	.86	....
10	.95	1.41
12	1.20	1.79
14	1.49	2.24

Made of Heavy Canvas = Perfect Splicing

White Woven Cotton Belting

3-X-13. This white woven cotton belt is especially adapted for elevating and conveyor purposes. It is solid woven, making it the heaviest and strongest cotton belt on the market.

Width. Inches.	Per foot 2-ply.	3-ply.	4-ply.	5-ply.	6-ply.
1	$0.06	$0.08	.....	.....	.....
1¼	.07	.....	.....	.....	.....
1½	.08	.11	.....	.....	.....
2	.09	.14	$0.18	.....	.....
2½	.11	.15	.21	.....	.....
3	.12	.18	.24	.....	.....
3½	.14	.21	.27	.....	.....
4	.15	.23	.32	.....	.....
4½	.18	.26	.35	.....	.....
5	....	.29	.38	$0.51	$0.60
6	....	.35	.45	.57	.69
7	....	.39	.51	.....	.....
8	....	.45	.60	.75	.90
9	....	.50	.69	.....	.....
10	....	.57	.75	.93	1.11
12	....	.....	.90	1.14	1.35
14	....	.....	1.05	1.32	1.62
16	....	.....	1.23	1.55	1.89
18	....	.....	1.35	1.73	2.10
20	....	.....	1.56	1.95	2.37
24	....	.....	2.10	2.49	2.91
30	....	.....	2.84	3.24	3.86
36	....	.....	3.38	4.05	4.73

LEATHER BELTING

"Hercules" New Leather Belting

This is a high grade leather belting, suitable for factories, mills and all general purposes. Owing to our purchasing in such large quantities, we are enabled to quote our customers the following low prices, which mean a saving to you of 25 to 30%. We guarantee satisfaction on any leather belt that you buy from us and if belt is not satisfactory return it to us after inspection.

Note.—Advise us in placing order if belt is to run on quarter twist.

No. 3-X-5

Width.	Single Thick, Per ft.	Double Thick, Per ft.
1 inch	$0.17	....
1¼ inches	.21	....
1½ inches	.25	....
1¾ inches	.29	....
2 inches	.34	$0.68
2½ inches	.38	.76
2½ inches	.42	.84
2¾ inches	.46	.92
3 inches	$0.50	$1.00
3½ inches	.59	1.18
4 inches	.67	1.34
4½ inches	.76	1.52
5 inches	.84	1.68
6 inches	1.01	2.02
7 inches	....	2.35
8 inches	....	2.69

Overhauled Leather Belting

We have but little trouble to convince people who have been in the habit of purchasing overhauled leather belts of the desirability of using them, even in preference to buying new belts. We rebuild belts and when ready for shipment they are for further use practically as good as new belts, with the exception that the stock, of course, is overhauled.

We will make these belts endless to order and in ordering these endless belts be sure to allow three feet for lap. We will rivet these belts, making nominal charge for same.

No. 3-X-4

Width, Inches.	Single Thick, Per ft.	Double Thick, Per ft.
1	$0.12	....
1¼	.15	....
1½	.18	....
2	.24	$0.48
2¼	.27	.54
2½	.30	.60
3	.36	.72
3½	.42	.84
4	.48	.96
4½	.54	1.08
5	.60	1.20
5½	.66	1.32
6	.72	1.44
7		$1.68
8		1.92
9		2.16
10		2.40
11		2.64
12		2.88
13		3.12
14		3.36
15		3.60
16		3.84
18		4.32
20		4.80
24		5.76

BARGAIN LIST OF NEW RUBBER BELTING

EVERY Belt in this list is a big bargain. To secure them you should place your order now for such Belts as you need.

These remnants are all brand new and are practically made up of our "Standard" and "Premier" Brands. In addition to these brands of Belting, we are constantly buying special lots of high grade Belts. These special lots, you will understand, we cannot put out under our regular brands. We are obliged to sacrifice them, so include them in this remnant list.

In offering these Belts we make no distinction as to grade, but offer the various widths and plys at a low, flat price. When sending your orders for Belts selected from this list, please give a first, second and third choice.

Write us if you fail to find on these pages the exact belt you need. We will most probably have it on hand, as almost daily we buy large stocks of belting.

We suggest that in ordering Belts from this list, you state the purpose for which the Belt is to be used. With this information, we will be able to select such a Belt as will answer your requirements.

"Standard" Rubber Belt Remnants

We Guarantee **These Standard Rubber Belt Remnants to meet the requirements of light work, such as all work necessary on a farm, and other places where a higher grade belt is not needed. We do not guarantee this belt for heavy work, such as is required in saw mills, quarries, coal mines, etc. If after 30 days' trial any defect in workmanship or material should appear, you may return same to us.**

If these belts are intended for quarter twist kindly advise us.

Order No.	Width, Inch	Ply	Feet, Long	Price per Belt
3-X-1001	1	3	15	$ 1.20
3-X-1002	1	3	17	1.36
3-X-1003	1	3	20	1.60
3-X-1004	1	3	22	1.76
3-X-1005	1	3	25	2.00
3-X-1006	1¼	3	16	1.76
3-X-1007	1¼	3	20	2.20
3-X-1008	1¼	3	21	2.31
3-X-1009	1¼	3	23	2.53
3-X-1010	1¼	3	25	2.75
3-X-1011	1½	3	15	1.95
3-X-1012	1½	3	18	2.34
3-X-1013	1½	3	20	2.60
3-X-1014	1½	3	22	2.86
3-X-1015	1½	3	24	3.12
3-X-1016	1½	3	27	3.51
3-X-1017	1½	3	28	3.64
3-X-1018	1½	3	30	3.90
3-X-1019	1½	3	33	4.29
3-X-1020	1½	3	35	4.55
3-X-1021	1½	3	37	4.81
3-X-1022	1½	3	38	4.94
3-X-1023	2	3	14	2.38
3-X-1024	2	3	16	2.72
3-X-1025	2	3	18	3.06
3-X-1026	2	3	19	3.23
3-X-1027	2	3	22	3.74
3-X-1028	2	3	25	4.25
3-X-1029	2	3	27	4.59
3-X-1030	2	3	28	4.76
3-X-1031	2	3	30	5.10
3-X-1032	2	3	32	5.44
3-X-1033	2	3	35	5.95
3-X-1034	2	3	37	6.29
3-X-1035	2	3	40	6.80
3-X-1036	2	3	43	7.31
3-X-1037	2	3	44	7.48
3-X-1038	2	3	46	7.82
3-X-1039	2	3	48	8.16
3-X-1040	2½	3	12	2.40
3-X-1041	2½	3	15	3.00
3-X-1042	2½	3	18	3.60
3-X-1043	2½	3	21	4.20
3-X-1044	2½	3	23	4.60
3-X-1045	2½	3	25	5.00
3-X-1046	2½	3	27	5.40
3-X-1047	2½	3	29	$ 5.80
3-X-1048	2½	3	30	6.00
3-X-1049	2½	3	32	6.40
3-X-1050	2½	3	33	6.60
3-X-1051	2½	3	35	7.00
3-X-1052	3	3	15	3.60
3-X-1053	3	3	17	4.08
3-X-1054	3	3	18	4.32
3-X-1055	3	3	21	5.04
3-X-1056	3	3	23	5.52
3-X-1057	3	3	26	6.24
3-X-1058	3	3	30	7.20
3-X-1059	3	3	33	7.92
3-X-1060	3	3	35	8.40
3-X-1061	3	3	38	9.12
3-X-1062	3	3	41	9.84
3-X-1063	3	3	48	11.52
3-X-1064	3½	3	12	3.36
3-X-1065	3½	3	13	3.64
3-X-1066	3½	3	15	4.20
3-X-1067	3½	3	18	5.04
3-X-1068	3½	3	22	6.16
3-X-1069	3½	3	27	7.56
3-X-1070	3½	3	32	8.96
3-X-1071	3½	3	35	9.80
3-X-1072	3½	3	36	10.08
3-X-1073	3½	3	38	10.64
3-X-1074	3½	3	43	12.04
3-X-1075	3½	3	44	12.32
3-X-1076	4	3	15	4.35
3-X-1077	4	3	18	5.22
3-X-1078	4	3	21	6.09
3-X-1079	4	3	22	6.38
3-X-1080	4	3	24	6.96
3-X-1081	4	3	25	7.25
3-X-1082	4	3	27	7.83
3-X-1083	4	3	33	9.57
3-X-1084	4	3	34	$ 9.86
3-X-1085	4	3	38	11.02
3-X-1086	4	3	40	11.60
3-X-1087	4	3	42	12.18
3-X-1088	6	3	18	7.74
3-X-1089	6	3	20	8.60
3-X-1090	6	3	23	9.89
3-X-1091	6	3	27	11.61
3-X-1092	6	3	30	12.90
3-X-1093	6	3	32	13.76
3-X-1094	6	3	35	15.05
3-X-1095	6	3	36	15.48
3-X-1096	6	3	38	16.34
3-X-1097	6	3	40	17.20
3-X-1098	6	3	42	18.06
3-X-1099	6	3	44	18.92
3-X-1100	2	4	15	3.00
3-X-1101	2	4	16	3.20
3-X-1102	2	4	18	2.60
3-X-1103	2	4	25	5.00
3-X-1104	2	4	27	5.40
3-X-1105	2	4	28	5.60
3-X-1106	2	4	32	6.40
3-X-1107	2	4	35	7.00
3-X-1108	2	4	36	7.20
3-X-1109	2	4	38	7.60
3-X-1110	2	4	43	8.60
3-X-1111	2	4	44	8.80
3-X-1112	2½	4	13	3.12
3-X-1113	2½	4	15	3.60
3-X-1114	2½	4	18	4.32
3-X-1115	2½	4	20	4.80
3-X-1116	2½	4	22	5.28
3-X-1117	2½	4	26	6.24
3-X-1118	2½	4	27	6.48
3-X-1119	2½	4	28	6.72
3-X-1120	2½	4	30	7.20
3-X-1121	2½	4	32	$ 7.68
3-X-1122	2½	4	33	7.92
3-X-1123	2½	4	35	8.40
3-X-1124	3	4	15	4.20
3-X-1125	3	4	17	4.76
3-X-1126	3	4	21	5.88
3-X-1127	3	4	23	6.44
3-X-1128	3	4	26	7.28
3-X-1129	3	4	27	7.56
3-X-1130	3	4	30	8.40
3-X-1131	3	4	32	8.96
3-X-1132	3	4	35	9.80
3-X-1133	3	4	36	10.08
3-X-1134	3	4	38	10.64
3-X-1135	3	4	40	11.20
3-X-1136	3½	4	15	4.80
3-X-1137	3½	4	16	5.12
3-X-1138	3½	4	18	5.76
3-X-1139	3½	4	20	6.40
3-X-1140	3½	4	23	7.36
3-X-1141	3½	4	26	8.32
3-X-1142	3½	4	27	8.64
3-X-1143	3½	4	32	10.24
3-X-1144	3½	4	35	11.20
3-X-1145	3½	4	36	11.52
3-X-1146	3½	4	38	12.16
3-X-1147	3½	4	45	14.40
3-X-1148	4	4	15	5.25
3-X-1149	4	4	18	6.30
3-X-1150	4	4	20	7.00
3-X-1151	4	4	23	8.05
3-X-1152	4	4	25	8.75
3-X-1153	4	4	26	9.10
3-X-1154	4	4	28	9.80
3-X-1155	4	4	30	10.50
3-X-1156	4	4	33	11.55
3-X-1157	4	4	35	12.25
3-X-1158	4	4	37	$12.95
3-X-1159	4	4	38	13.30
3-X-1160	4½	4	18	7.02
3-X-1161	4½	4	20	7.80
3-X-1162	4½	4	25	9.75
3-X-1163	4½	4	28	10.92
3-X-1164	4½	4	30	11.70
3-X-1165	4½	4	32	12.48
3-X-1166	4½	4	34	13.26
3-X-1167	4½	4	35	13.65
3-X-1168	4½	4	38	14.82
3-X-1169	5	4	15	6.45
3-X-1170	5	4	16	6.88
3-X-1171	5	4	18	7.74
3-X-1172	5	4	20	8.60
3-X-1173	5	4	22	9.46
3-X-1174	5	4	23	9.89
3-X-1175	5	4	25	10.75
3-X-1176	5	4	27	11.61
3-X-1177	5	4	29	12.47
3-X-1178	5	4	30	12.90
3-X-1179	5	4	31	13.33
3-X-1180	5	4	33	14.19
3-X-1181	5	4	35	15.05
3-X-1182	5	4	38	16.34
3-X-1183	5	4	40	17.20
3-X-1184	5	4	42	18.06
3-X-1185	5	4	45	19.35
3-X-1186	6	4	15	7.80
3-X-1187	6	4	18	9.36
3-X-1188	6	4	20	10.40
3-X-1189	6	4	21	10.92
3-X-1190	6	4	26	13.52
3-X-1191	6	4	28	14.56
3-X-1192	6	4	30	15.60
3-X-1193	6	4	35	18.20
3-X-1194	6	4	37	19.24
3-X-1195	6	4	38	19.76
3-X-1196	6	4	40	20.80
3-X-1197	6	4	42	21.84
3-X-1198	6	4	44	22.88
3-X-1199	6	4	46	23.92
3-X-1200	6	4	48	24.96
3-X-1201	6	4	50	26.00
3-X-1202	6	4	52	27.04

"Premier Brand" Rubber Belt Remnants

Brand new and the best general purpose belt on the market for medium power and conveying purposes. We do not recommend this belt for sawmill or other work where belting is required to run constantly and transmit heavy power, but for other general purposes it will give first-class service.

Order No.	Width, Inch	Ply	Feet, Long	Price per Belt
3-X-2001	3	4	18	$ 5.22
3-X-2002	3	4	25	7.25
3-X-2003	3	4	30	8.70
3-X-2004	4	4	17	6.46
3-X-2005	4	4	20	7.60
3-X-2006	4	4	28	10.64
3-X-2007	4	4	30	11.40
3-X-2008	4	4	35	13.30
3-X-2009	4½	4	20	8.40
3-X-2010	4½	4	22	9.24
3-X-2011	4½	4	26	10.92
3-X-2012	5	4	20	9.00
3-X-2013	5	4	28	12.60
3-X-2014	5	4	32	14.40
3-X-2015	5	4	35	15.75
3-X-2016	5	4	40	18.00
3-X-2017	6	4	15	8.40
3-X-2018	6	4	22	$12.32
3-X-2019	6	4	25	14.00
3-X-2020	6	4	32	17.92
3-X-2021	6	4	38	21.28
3-X-2022	7	4	28	17.92
3-X-2023	7	4	32	20.48
3-X-2024	8	4	25	17.75
3-X-2025	8	4	30	21.30
3-X-2026	8	4	32	22.72
3-X-2027	8	4	35	24.85
3-X-2028	8	4	38	26.98
3-X-2029	8	4	42	29.82
3-X-2030	10	4	35	27.30
3-X-2031	10	4	50	39.00
3-X-2032	10	4	60	46.80
3-X-2033	10	4	65	50.70
3-X-2034	10	4	70	54.60
3-X-2035	12	4	25	$26.25
3-X-2036	12	4	32	33.60
3-X-2037	12	4	45	47.25
3-X-2038	12	4	50	52.50
3-X-2039	14	4	29	35.38
3-X-2040	14	4	30	36.60
3-X-2041	14	4	35	42.70
3-X-2042	14	4	48	58.56
3-X-2043	5	5	25	14.25
3-X-2044	5	5	30	17.10
3-X-2045	5	5	32	18.24
3-X-2046	5	5	35	19.95
3-X-2047	5	5	42	23.94
3-X-2048	6	5	15	10.50
3-X-2049	6	5	18	12.60
3-X-2050	6	5	30	21.00
3-X-2051	6	5	35	24.50
3-X-2052	8	5	18	$15.84
3-X-2053	8	5	22	19.36
3-X-2054	8	5	30	26.40
3-X-2055	8	5	35	30.80
3-X-2056	8	5	40	35.20
3-X-2057	10	5	22	23.76
3-X-2058	10	5	27	29.16
3-X-2059	10	5	35	37.80
3-X-2060	10	5	48	51.84
3-X-2061	12	5	20	26.40
3-X-2062	12	5	38	50.16
3-X-2063	12	5	40	52.80
3-X-2064	12	5	48	63.36
3-X-2065	6	6	20	16.80
3-X-2066	6	6	22	18.48
3-X-2067	6	6	34	28.56
3-X-2068	6	6	35	29.40
3-X-2069	8	6	15	$15.75
3-X-2070	8	6	25	26.25
3-X-2071	8	6	30	31.50
3-X-2072	8	6	35	36.75
3-X-2073	10	6	25	23.00
3-X-2074	10	6	29	38.28
3-X-2075	10	6	40	52.80
3-X-2076	10	6	52	58.64
3-X-2077	10	6	60	79.20
3-X-2078	12	6	40	62.80
3-X-2079	12	6	45	70.65
3-X-2080	12	6	50	78.50
3-X-2081	12	6	58	91.06
3-X-2082	14	6	40	73.20
3-X-2083	14	6	45	82.35
3-X-2084	14	6	50	91.50
3-X-2085	14	6	55	100.65

RUBBER AND CANVAS BELT REMNANTS

"Invincible" Rubber Belt Remnants

We Guarantee Invincible Rubber Belt Remnants to meet the requirements of the hardest service such as sawmills, quarries and any place where a superior belt is required. Any time during 30 days from shipment, should these belts prove defective in workmanship or material you may return same to us and we will refund your money, also any freight charges you have paid. Our Invincible Belts are the best on the market and we can save you from 50 to 60 per cent. Kindly advise us if for quarter twist.

Order No.	Width Inch	Ply	Feet Long	Price per Belt
3-X-5001	4	4	16	$ 7.20
3-X-5002	4	4	18	8.10
3-X-5003	4	4	20	9.00
3-X-5004	4	4	21	9.45
3-X-5005	4	4	24	10.80
3-X-5006	4	4	25	11.25
3-X-5007	4	4	28	12.60
3-X-5008	4	4	29	13.05
3-X-5009	4	4	30	13.50
3-X-5010	4	4	32	14.40
3-X-5011	4	4	34	15.30
3-X-5012	4	4	35	15.75
3-X-5013	5	4	18	9.90
3-X-5014	5	4	20	11.00
3-X-5015	5	4	23	12.65
3-X-5016	5	4	25	13.75
3-X-5017	5	4	28	15.40
3-X-5018	5	4	32	17.60
3-X-5019	5	4	35	19.25
3-X-5020	5	4	37	20.35
3-X-5021	5	4	38	20.90
3-X-5022	5	4	40	22.00
3-X-5023	5	4	42	23.10
3-X-5024	5	4	44	24.20
3-X-5025	6	4	20	13.00
3-X-5026	6	4	22	14.30
3-X-5027	6	4	25	16.25
3-X-5028	6	4	27	17.55
3-X-5029	6	4	28	18.20
3-X-5030	6	4	29	18.85
3-X-5031	6	4	32	20.80
3-X-5032	6	4	35	22.75
3-X-5033	6	4	36	23.40
3-X-5034	6	4	37	24.05
3-X-5035	6	4	38	24.70
3-X-5036	6	4	40	26.00
3-X-5037	7	4	20	15.20
3-X-5038	7	4	22	16.72
3-X-5039	7	4	23	17.48
3-X-5040	7	4	26	19.76
3-X-5041	7	4	28	21.28
3-X-5042	7	4	35	26.60
3-X-5043	7	4	45	34.20
3-X-5044	8	4	22	18.26
3-X-5045	8	4	25	20.75
3-X-5046	8	4	28	23.24
3-X-5047	8	4	30	$24.90
3-X-5048	8	4	32	26.56
3-X-5049	8	4	34	28.22
3-X-5050	8	4	35	29.05
3-X-5051	8	4	38	31.54
3-X-5052	8	4	40	33.20
3-X-5053	8	4	42	34.86
3-X-5054	8	4	45	37.35
3-X-5055	8	4	50	41.50
3-X-5056	9	4	30	27.00
3-X-5057	9	4	35	31.50
3-X-5058	9	4	48	43.20
3-X-5059	10	4	30	30.60
3-X-5060	10	4	35	35.70
3-X-5061	10	4	38	38.76
3-X-5062	10	4	40	40.80
3-X-5063	10	4	43	43.86
3-X-5064	10	4	45	45.90
3-X-5065	10	4	48	48.96
3-X-5066	10	4	50	51.00
3-X-5067	10	4	55	56.10
3-X-5068	10	4	57	58.14
3-X-5069	10	4	58	59.16
3-X-5070	10	4	60	61.20
3-X-5071	12	4	30	36.90
3-X-5072	12	4	35	43.05
3-X-5073	12	4	38	46.74
3-X-5074	12	4	40	49.20
3-X-5075	12	4	42	51.66
3-X-5076	12	4	45	55.35
3-X-5077	12	4	48	59.04
3-X-5078	12	4	50	61.50
3-X-5079	12	4	53	65.19
3-X-5080	12	4	55	67.65
3-X-5081	12	4	60	73.80
3-X-5082	12	4	65	79.95
3-X-5083	14	4	35	50.40
3-X-5084	14	4	50	72.00
3-X-5085	14	4	60	86.40
3-X-5086	15	4	50	77.00
3-X-5087	16	4	40	65.60
3-X-5088	16	4	52	85.28
3-X-5089	4	5	18	9.90
3-X-5090	4	5	20	11.00
3-X-5091	4	5	22	12.10
3-X-5092	4	5	25	13.75
3-X-5093	4	5	30	$16.50
3-X-5094	4	5	32	17.60
3-X-5095	4	5	35	19.25
3-X-5096	4	5	38	20.90
3-X-5097	4	5	40	22.00
3-X-5098	5	5	25	17.25
3-X-5099	5	5	28	19.32
3-X-5100	5	5	30	20.70
3-X-5101	5	5	31	21.39
3-X-5102	5	5	33	22.77
3-X-5103	5	5	35	24.15
3-X-5104	5	5	37	25.53
3-X-5105	5	5	38	26.22
3-X-5106	5	5	40	27.60
3-X-5107	5	5	42	28.98
3-X-5108	6	5	20	16.20
3-X-5109	6	5	22	17.82
3-X-5110	6	5	25	20.25
3-X-5111	6	5	28	22.68
3-X-5112	6	5	30	24.30
3-X-5113	6	5	32	25.92
3-X-5114	6	5	38	30.78
3-X-5115	6	5	39	31.59
3-X-5116	6	5	40	32.40
3-X-5117	6	5	42	34.02
3-X-5118	6	5	43	34.83
3-X-5119	6	5	45	36.45
3-X-5120	7	5	40	38.80
3-X-5121	7	5	45	43.65
3-X-5122	8	5	27	27.54
3-X-5123	8	5	28	28.56
3-X-5124	8	5	29	29.58
3-X-5125	8	5	32	32.64
3-X-5126	8	5	35	35.70
3-X-5127	8	5	37	37.74
3-X-5128	8	5	38	38.76
3-X-5129	8	5	40	40.80
3-X-5130	8	5	45	45.90
3-X-5131	8	5	47	47.94
3-X-5132	8	5	49	49.98
3-X-5133	8	5	50	51.00
3-X-5134	9	5	48	55.20
3-X-5135	9	5	50	57.50
3-X-5136	10	5	35	44.45
3-X-5137	10	5	38	48.26
3-X-5138	10	5	40	50.80
3-X-5139	10	5	45	$57.15
3-X-5140	10	5	48	60.96
3-X-5141	10	5	50	63.50
3-X-5142	10	5	53	67.31
3-X-5143	10	5	55	68.85
3-X-5144	10	5	58	73.66
3-X-5145	10	5	60	76.20
3-X-5146	10	5	62	78.74
3-X-5147	10	5	65	82.55
3-X-5148	12	5	35	53.55
3-X-5149	12	5	40	61.20
3-X-5150	12	5	42	64.26
3-X-5151	12	5	48	73.44
3-X-5152	12	5	50	76.50
3-X-5153	12	5	55	84.15
3-X-5154	12	5	58	88.74
3-X-5155	12	5	59	90.27
3-X-5156	12	5	60	91.90
3-X-5157	13	5	40	66.80
3-X-5158	13	5	65	108.55
3-X-5159	14	5	36	64.44
3-X-5160	14	5	38	68.02
3-X-5161	14	5	50	89.50
3-X-5162	14	5	52	93.08
3-X-5163	14	5	55	98.45
3-X-5164	14	5	60	107.40
3-X-5165	15	5	65	124.80
3-X-5166	16	5	55	113.30
3-X-5167	18	5	60	138.60
3-X-5168	6	6	18	17.64
3-X-5169	6	6	20	19.60
3-X-5170	6	6	22	21.56
3-X-5171	6	6	25	24.50
3-X-5172	6	6	28	27.44
3-X-5173	6	6	30	29.40
3-X-5174	6	6	32	31.36
3-X-5175	6	6	35	34.30
3-X-5176	6	6	38	37.24
3-X-5177	6	6	39	38.22
3-X-5178	6	6	40	39.20
3-X-5179	7	6	40	46.00
3-X-5180	7	6	44	50.60
3-X-5181	8	6	30	36.90
3-X-5182	8	6	32	39.36
3-X-5183	8	6	33	40.59
3-X-5184	8	6	35	$43.05
3-X-5185	8	6	37	45.51
3-X-5186	8	6	38	46.74
3-X-5187	8	6	39	47.97
3-X-5188	8	6	40	49.20
3-X-5189	8	6	42	51.66
3-X-5190	8	6	44	54.12
3-X-5191	8	6	45	55.35
3-X-5192	8	6	48	59.04
3-X-5193	9	6	40	55.60
3-X-5194	9	6	45	62.55
3-X-5195	10	6	30	45.90
3-X-5196	10	6	32	48.96
3-X-5197	10	6	35	53.55
3-X-5198	10	6	38	58.14
3-X-5199	10	6	40	61.20
3-X-5200	10	6	45	68.85
3-X-5201	10	6	50	76.50
3-X-5202	10	6	52	79.56
3-X-5203	10	6	54	82.62
3-X-5204	10	6	55	84.15
3-X-5205	10	6	58	88.74
3-X-5206	10	6	60	91.80
5-X-5207	12	6	35	64.05
3-X-5208	12	6	38	69.54
3-X-5209	12	6	40	73.20
3-X-5210	12	6	42	76.86
3-X-5211	12	6	44	80.52
3-X-5212	12	6	48	87.84
3-X-5213	12	6	50	91.50
3-X-5214	12	6	54	98.92
3-X-5215	12	6	55	100.75
3-X-5216	12	6	58	106.14
3-X-5217	12	6	60	109.80
3-X-5218	12	6	62	113.46
3-X-5119	14	6	35	75.60
3-X-5220	14	6	38	82.08
3-X-5221	14	6	40	86.40
3-X-5222	14	6	42	90.72
3-X-5223	14	6	45	97.20
3-X-5224	14	6	48	103.68
3-X-5225	14	6	52	112.32
3-X-5226	14	6	60	129.60
3-X-5227	16	6	45	110.70
3-X-5228	18	6	58	160.66

Red Stitched Canvas Belt Remnants

Brand New, Excellent Quality

Order No.	Width Inch	Ply	Feet Long	Price per Belt
3-X-3001	1½	4	15	$ 2.55
3-X-3002	1½	4	25	4.25
3-X-3003	1½	4	34	5.78
3-X-3004	1½	4	37	6.29
3-X-3005	1½	4	40	6.80
3-X-3006	1½	4	42	7.14
3-X-3007	1½	4	44	7.48
3-X-3008	2	4	18	3.96
3-X-3009	2	4	24	5.28
3-X-3010	2	4	30	6.60
3-X-3011	2	4	32	7.04
3-X-3012	2	4	36	7.92
3-X-3013	2	4	38	8.36
3-X-3014	2	4	40	8.80
3-X-3015	2½	4	15	4.05
3-X-3016	2½	4	22	5.94
3-X-3017	2½	4	32	8.64
3-X-3018	2½	4	34	9.18
3-X-3019	2½	4	37	9.99
3-X-3020	2½	4	39	10.53
3-X-3021	2½	4	40	10.80
3-X-3022	3	4	15	4.65
3-X-3023	3	4	20	6.20
3-X-3024	3	4	26	8.06
3-X-3025	3	4	32	9.92
3-X-3026	3	4	35	10.85
3-X-3027	3	4	38	11.78
3-X-3028	3	4	40	12.40
3-X-3029	3½	4	18	6.30
3-X-3030	3½	4	22	$ 7.70
3-X-3031	3½	4	28	9.80
3-X-3032	3½	4	30	10.50
3-X-3033	3½	4	32	11.20
3-X-3034	3½	4	36	12.60
3-X-3035	3½	4	38	13.30
3-X-3036	4	4	15	6.15
3-X-3037	4	4	17	6.97
3-X-3038	4	4	20	8.20
3-X-3039	4	4	24	9.84
3-X-3040	4	4	25	10.25
3-X-3041	4	4	32	13.12
3-X-3042	4	4	40	16.40
3-X-3043	4½	4	18	8.10
3-X-3044	4½	4	22	9.90
3-X-3045	4½	4	27	12.15
3-X-3046	4½	4	34	15.30
3-X-3047	4½	4	36	16.20
3-X-3048	4½	4	38	17.10
3-X-3049	4½	4	40	18.00
3-X-3050	5	4	15	7.20
3-X-3051	5	4	17	8.16
3-X-3052	5	4	20	9.60
3-X-3053	5	4	28	13.44
3-X-3054	5	4	32	15.36
3-X-3055	5	4	37	17.76
3-X-3056	5	4	40	19.20
3-X-3057	6	4	16	9.12
3-X-3058	6	4	21	11.97
3-X-3059	6	4	25	$14.25
3-X-3060	6	4	34	19.38
3-X-3061	6	4	36	20.52
3-X-3062	6	4	38	21.66
3-X-3063	6	4	42	23.94
3-X-3064	7	4	15	9.90
3-X-3065	7	4	18	11.88
3-X-3066	7	4	26	17.16
3-X-3067	7	4	35	23.10
3-X-3068	7	4	38	25.08
3-X-3069	7	4	40	26.40
3-X-3070	8	4	17	12.41
3-X-3071	8	4	22	16.06
3-X-3072	8	4	28	20.44
3-X-3073	8	4	30	21.90
3-X-3074	8	4	31	22.63
3-X-3075	8	4	32	23.36
3-X-3076	8	4	39	28.47
3-X-3077	9	4	18	14.94
3-X-3078	9	4	25	20.75
3-X-3079	9	4	29	24.07
3-X-3080	9	4	32	26.56
3-X-3081	9	4	37	30.71
3-X-3082	9	4	40	33.20
3-X-3083	10	4	30	26.40
3-X-3084	10	4	35	30.80
3-X-3085	10	4	38	33.44
3-X-3086	10	4	42	36.96
3-X-3087	10	4	45	39.60
3-X-3088	10	4	50	$44.00
3-X-3089	10	4	55	48.40
3-X-3090	12	4	32	35.84
3-X-3091	12	4	37	41.44
3-X-3092	12	4	43	48.16
3-X-3093	12	4	46	51.52
3-X-3094	12	4	48	53.76
3-X-3095	12	4	52	58.24
3-X-3096	12	4	54	60.48
3-X-3097	14	4	30	41.70
3-X-3098	14	4	35	48.65
3-X-3099	14	4	38	52.82
3-X-3100	14	4	42	58.35
3-X-3101	14	4	45	62.55
3-X-3102	14	4	50	69.50
3-X-3103	14	4	55	76.45
3-X-3104	5	6	15	11.10
3-X-3105	5	6	20	14.80
3-X-3106	5	6	24	17.76
3-X-3107	5	6	30	22.20
3-X-3108	5	6	32	23.68
3-X-3109	5	6	36	26.64
3-X-3110	5	6	40	29.60
3-X-3111	6	6	18	15.30
3-X-3112	6	6	22	18.70
3-X-3113	6	6	28	23.80
3-X-3114	6	6	35	29.75
3-X-3115	6	6	38	32.30
3-X-3116	6	6	40	34.00
3-X-3117	6	6	42	$35.70
3-X-3118	8	6	15	16.65
3-X-3119	8	6	20	22.20
3-X-3120	8	6	24	26.64
3-X-3121	8	6	30	33.30
3-X-3122	8	6	32	35.52
3-X-3123	8	6	37	41.07
3-X-3124	8	6	40	44.40
3-X-3125	10	6	30	39.60
3-X-3126	10	6	34	44.88
3-X-3127	10	6	38	50.16
3-X-3128	10	6	40	52.80
3-X-3129	10	6	42	55.44
3-X-3130	10	6	48	63.36
3-X-3131	10	6	55	71.60
3-X-3132	12	6	32	53.44
3-X-3133	12	6	35	58.45
3-X-3134	12	6	38	63.46
3-X-3135	12	6	40	66.80
3-X-3136	12	6	44	73.48
3-X-3137	12	6	50	83.50
3-X-3138	12	6	54	90.18
3-X-3139	14	6	32	66.88
3-X-3140	14	6	36	75.24
3-X-3141	14	6	40	83.60
3-X-3142	14	6	45	94.05
3-X-3143	14	6	48	100.32
3-X-3144	14	6	53	110.77
3-X-3145	14	6	55	114.95

Short Pieces of Rubber Belting

These pieces of new and overhauled rubber belting are too short to be used for belting, but can be used for a number of purposes such as repairing your old belts, making washers, gaskets, packing, wagon hub covers, hand pads, shoe soles, horse shoe pads and other purposes too numerous to mention. Every farmer, mechanic, and blacksmith will find considerable use for this material. Owing to the extremely low price we cannot sell less than 10 pounds to each customer. These prices will range in sizes up to six feet long and all orders accepted for miscellaneous widths and lengths only.

3-X-7. Price per pound..... **15c**

Short Pieces of Canvas Belting

3-X-10. These pieces of new and overhauled canvas belting are in random lengths, 2 to 10 foot; widths, 2 inches and up, four and six ply. These pieces can be used for patching belts and many other purposes. No order will be accepted for any specified width or length, or for less than 10 pounds.

Price per pound..... **15c**

Short Pieces of Leather Belting

These pieces of overhauled leather belting can be used for numerous purposes such as repairing harness, hand pads, washers, gaskets, pump plungers and other purposes. Owing to the extreme low prices we cannot sell less than 4 pounds to each customer. This belting comes in widths from 1" to 3" and random lengths. No order accepted for any specified width or length. Please advise for what purpose you intend using same when ordering and we will send you as near as we can what will answer your purpose.

3-X-5. Price per pound..... **50c**

Belting Supplies, Packing, Leather, Etc.

"Adams" Canvas Pulley Covering

$4.50

Prevents belts slipping. Threshermen appreciate it; saves power and money. Can run with loose belt. Lessens friction on bearings and shaft. It is easily applied without rivets and is durable.

Put up in convenient outfits, consisting of Canvas Cement, Brush and Scraper for applying.

Lot No. 3-X-102. Outfit No. 3. Sufficient for 10 sq. ft. of pulley surface.....$4.50

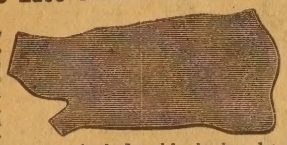
Perfection Belt Dressing

Prevents belt from slipping. Contains nothing that is injurious to the belt.

Put up in 1 lb. sticks.

Lot No. 3-X-104. Price per stick.....35c

Chrome Lace Leather Sides



Chrome Lace Leather Sides, being of pure Chrome tannage are not affected by heat, water, steam, friction or climatic conditions. For an economical durable lacing has no competition. We do not cut sides.

Lot No. 3-X-25 Price per side

Sides contain about 8 sq. ft.....$3.60
Sides contain about 10 sq. ft..... 4.50
Sides contain about 12 sq. ft..... 5.40

Adjustable Lace Leather Cutters

Made especially for cutting Raw Hide Lace Leather. Cutters of finely tempered steel.

Lot No. 3-X-26. Price each.....50c

Cut Chrome Lace Leather

Made of the finest selected tannage. Put up in bundles containing 50 to 100 feet. We guarantee that this is the strongest and best quality of chrome lace leather on the market.

Lot No. 3-X-24.

Width, Inches	¼	5/16	⅜	½	⅝
Price, 50 feet..	$0.65	$0.75	$0.95	$1.35	$1.60
Price, 100 feet.	1.25	1.45	1.80	2.55	3.00

Composition Wire Belt Lace

The strongest wire belt lace manufactured. Tensile strength being 2,000 lbs.; will stand a far greater strain than is estimated in the driving capacity of a belt. Is better than hooks. Put up in boxes of 50 feet.

Lot No. 3-X-32. Price per Box

No 1. For belts 6 inches wide and under $0.70
No. 2. For all double leather belts less than 8 inches and for all rubber belts 5 ply or heavier..... .75
No. 3. For double belts above 8 inches in width ..... .80

Steel Grain Buckets

For strength and smoothness of finish this bucket has no superior. The ends are double seamed to the body by special machinery. Guarded with band iron firmly riveted to the body, making the bucket light but firm.

Lot No. 3-X-923.

Across Belt	Pro-jection	Price Each	Across Belt	Pro-jection	Price Each
5	4	23c	9	5	39c
5½	4	24c	10	5½	49c
6	4	25c	11	6	56c
7	4½	32c	12	6	62c
8	5	35c	14	6	70c

SHEET PACKING

Red Sheet Packing

Equal to the highest grade on the market. It is intended for general use and will not harden under the most extreme heat, and is very satisfactory for making gaskets, etc. Put up in rolls 36 in. wide. We do not cut rolls lengthwise, but will furnish any quantity one yard wide and any length desired. Sizes, in stock, 1/16 and ⅛ inch.

Lot No. 3-X-15. Price, per lb.....50c

Cloth Insertion Sheet Packing

Used extensively by engineers and steam users in general. It combines smoothness of finish, strength of cloth insertion, pliability and durability. Put up in rolls 36 in. wide. We do not cut the roll lengthwise, but will furnish any quantity 1 yard wide. Thickness 1/16 and ⅛ inch.

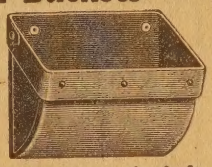
Lot No. 3-X-14. Price per lb.....32c

Steel Belt Punch

To drive. Made of solid tool steel, drilled and reamed. Lot No. 3-X-27.

Size No.	Size Hole Inches	Price Each	Size No.	Size Hole Inches	Price Each
11	¼	40c	13	5/16	50c
12	9/32	45c			

Tin Mill Buckets

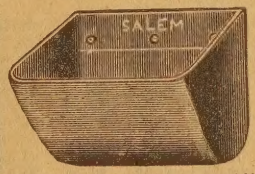


3-X-925. The Smaller sizes are made of tin and the larger of Smooth Refined Steel; the ends are double seamed to the body. For strength and smoothness of finish has no superior.

They are guarded with band iron, firmly riveted to the body, making the bucket light but firm; the shape is especially adapted to discharge readily.

Width On Belt	Pro-jection	Price Each	Width On Belt	Pro-jection	Price Each
2½	2½	15c	4½	3½	21c
3	3	16c	5	4	24c
3½	3	17c	5½	4	26c
4	3	18c	6	4	27c
4	3½	20c			

Salem Elevator Buckets



For miscellaneous elevator work we consider this bucket the best on the market. We have made a decided improvement on these buckets. We spot well all 16-gauge and lighter with an electric welding machine. This takes the place of rivets, making them stronger and smoother inside as well as outside; discharges perfectly. Capacity, bu. per hour, 200 ft. per min. 12 in. apart.

Lot No. 3-X-921.

Cap. Bu.	Wdth. Ins.	Pro-jctn. Ins.	Price Each	Cap. Bu.	Wdth. Ins.	Pro-jctn. Ins.	Price Each
40	2½	2¼	$0.10	229	5	4	$0.21
40	2½	2½	.11	251	5½	4	.22
59	3	2½	.12	274	6	4	.22
69	3½	2½	.13	500	7	4½	.30
87	3	3	.14	670	8	5	.38
102	3½	3	.15	754	9	5	.40
116	4	3	.16	973	10	5½	.48
131	4½	3	.17	1200	10	6	.55
159	4	3½	.18	1342	11	6	.63
179	4½	3½	.19	1464	12	6	.70
194	5	3½	.20	1500	10	7	.75

See pages 222 and 239 for other elevator equipment.

Spiral Graphite Packing

Spiral Graphite Packing. Made of the very best quality of stock, guaranteed to give satisfaction. Put up in boxes containing 12 feet, and in sizes from ¼" up to and including ⅞".

Lot No. 3-X-23. Price per lb. (any size) 95c

Alligator Steel Belt Lacing

Just a hammer to apply it. Packed in boxes, complete with pins.

Lot No. 3X15. For belts ⅛ to 3/16 inch thick. Packed in 8-inch lengths containing sufficient for 64 inches in width of belting. Per box.....$1.75
Lot No. 3X20 For belts 3/16 to ¼ inch thick. Packed in 12-inch lengths, containing sufficient for 60 inches in width of belting. Per box.....$1.75
Lot No. 3X25. For belts ¼ to 5/16 inch thick. Packed in 8-inch lengths containing sufficient for 48 inches in width of belting. Per box.....$1.65
Lot No. 3X35. For belts 5/16 to ⅜ inch thick. Packed in 8-inch lengths containing sufficient for 32 inches in width of belting. Per box.....$1.55
Lot No. 3X45. For belts ⅜ to ¾ inch thick. Packed in 12-inch lengths containing sufficient for 48 inches in width of belting. Per box.....$2.90

Giant Belt Hooks

For leather, rubber and cotton belts. Have double the strength of any other wire belt hooks that are made. Make perfect joints. No tool required but a hammer to insert them. Put up in boxes containing 250.

Lot No. 3-X-30.

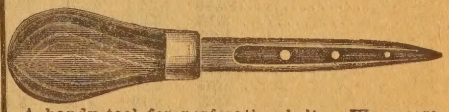
Size A. Approximate length, ¾ inch. Single length belts. Price per box.....65c
Size B. Approximate length, 1 inch. For heavy single and light double leather belts. Price per box 80c
Size C. Approximate length, 1¼ inches. For heavy double length belts. Price per box...90c
Size D. Approximate length, 1¼ inches. 3- and 4-ply rubber or cotton belt. Price per box..95c
Size E. Approximate length 1⅝ inches. 5- and 6-ply rubber or cotton belt. Price per box..$1.00

Steel Belt Lacing

Made of special steel, easily applied, making a smooth joint. The teeth are widely spaced and therefore does not cut the belt. Packed in boxes containing 100 inches in assorted lengths. In ordering hooks be sure and state **kind and thickness of belt** with which they are to be used.

Lot No. 3-X-31. For single leather, rubber and canvas belts, up to 4-ply not wider than 6 inches. Price per box.....$1.15
Lot No. 3-X-31½. For single leather, rubber and canvas belts, 4-ply, 6 to 10 inches wide. Price per box $1.35
Lot No. 3-X-31-A. For double leather, rubber and canvas belts, up to 6-ply, 12 inches and wider. Price per box.....$1.80

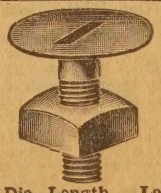
Pointed Belt Awl-Perforator



A handy tool for perforating belts. We recommend the pointed belt awl for preparing belts to be spliced with lace leather, wire, etc.; will not cut threads of fabric, but simply separate them. Can be used for many other things.

Lot No. 3-X-28. Price each.....65c

Elevator Bucket Bolts



We carry a complete stock of elevator, bucket bolts, corrugated, slotted and flat head, etc. Special prices gladly furnished on application.

Lot No. 3-X-927.

Dia. In.	Length In.	
¼	½	Price per 100.....85c
¼	⅝	Price per 100.....87c
¼	¾	Price per 100.....90c
¼	1	Price per 100.....95c
¼	1¼	Price per 100.....$1.05

Shafting and Shaft Line Supplies

Recent great purchases of complete plants and factories secured thousands of feet of perfect shafting absolutely straight and as good as new for further service. This shafting is guaranteed to be free from all defects.

No matter what your requirements are in Pulleys, Shafting, Hangers, Belting, etc., we can supply anything you need for power and transmission of every description. Give us a general idea of the conditions you will have to meet—let us solve your problem; let us save time and money for you.

Brand new Cold Rolled Steel Shafting at factory prices. Cut to any length up to 24 feet. Where longer shafts are required, it is necessary that two pieces be used together with coupling.

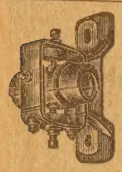
We also have a large stock of second hand shafting, 1 15/16 inch and larger in diameter, which we quote subject to stock being on hand at time of receiving order.

When we are out of second hand shafting, we will substitute new Shafting at prices quoted on new, unless we are advised to the contrary.

16-X-1. Brand New. **SHAFTING** **16-X-3. Second-Hand**

Prices on Shafting Subject to Change Without Notice

Size, inches	¾	1	1 3/16	1¼	1 7/16	1½	1 11/16	1 15/16	2 3/16
Weight per ft., lbs.	1½	2½	3¾	4¼	5½	6	7½	10	12¾
Second-hand, per feet	...	...	...	...	...	...	...	50c	65c
Brand new, per ft.	15c	25c	35c	38c	48c	51c	65c	75c	$1.10
Size, inches	2 7/16	2 11/16	2 15/16	3 3/16	3 7/16	3 11/16	3 15/16		
Weight, per ft., lbs.	16	19¼	23	27¼	31½	36½	41½		
Second-hand, per ft	80c	95c	$1.15	1.35	1.60	1.85	2.00		
Brand new, per ft.	$1.25	1.52	1.85	2.15	2.52	3.25	3.65		

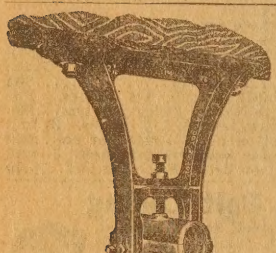


Adjustable Post Hangers

Brand new adjustable Ball and Socket Double Brace Post Hangers, with plain wick oiling bearings up to 2 11/16", 3 3/16" to 3 15/16" Ring Oiling Bearings.

16-X-7. Made with adjusting socket connection with plunger screws, true ball and bearing and ample adjustment.

Size, inch	¾	1	1 3/16	1¼	1 7/16	1½	1 11/16	1 15/16
Price, each	3.60	3.75	4.80	5.00	5.15	5.25	6.30	7.20
Size, each	2 3/16	2 7/16	2 11/16	2 15/16	3 3/16	3 7/16	3 11/16	3 15/16
Price, each	9.90	11.10	15.00	17.40	24.00	26.40	37.80	40.20



Brand New Drop Hangers

Double Brace, Adjustable, Ball and Socket Drop Hangers, Standard Bearings.

16-X-9. Our Hangers are the equal of any hangers on the market. They are as good as the best material and finest workmanship can make them. We use only the very best grade of babbitt applicable to shafting service, which is securely anchored to the castings and machined up by special process.

Shaft. Inches.	Drop in Inches. 8	10	12	14	16	18	20
¾	$3.30	$3.60	$3.90	$4.50	....	....	....
1	3.45	3.75	4.05	4.65	....	....	....
1 3/16	3.60	3.90	4.20	4.80	....	....	....
1¼	3.70	4.00	4.30	4.90	$5.10	$5.70	....
1 7/16	3.90	4.20	4.50	5.10	5.40	6.00	....
1½	4.00	4.30	4.60	5.20	5.50	6.10	....
1 11/16	5.40	5.70	6.00	6.60	6.90	7.20	$7.80
1 15/16	6.30	6.60	6.90	7.50	7.80	8.10	8.70

Write for prices on larger sizes. We can also furnish both ring and plain wick oiling hangers.

Overhauled Drop Hangers

16-X-11. We offer second hand Drop Hangers, subject to stock being on hand at time order is received. **Should we not have second hand hangers in the sizes desired we will substitute new hangers, at prices quoted, unless otherwise advised.** The boxes of our second hand Drop Hangers are babbitted and are guaranteed to be in first class condition. **When necessary we rebabbitt them, good as new.**

Size, Shaft Inches.	Drop in Inches. 8	10	12	14	16	18	20	24	30	36
1 7/16	$2.40	$2.55	$2.70	$3.00	$3.15	$3.30	$3.60	$4.20	....	....
1 11/16	3.15	3.30	3.45	3.75	3.90	4.05	4.20	4.65	$7.05	$8.25
1 15/16	3.60	3.75	3.90	4.20	4.35	4.50	4.65	5.10	7.50	8.70
2 3/16	4.80	4.95	5.40	5.55	5.70	5.90	6.15	6.75	9.00	10.80
2 7/16	5.40	5.55	5.70	6.00	6.30	6.50	6.75	7.35	9.60	11.40
2 11/16	6.75	6.90	7.50	7.95	8.40	9.00	9.60	11.10	13.20	15.00
2 15/16	7.85	8.10	8.70	9.15	9.60	10.20	10.80	11.70	14.40	16.20
3 3/16	11.00	11.70	12.30	12.90	13.50	14.25	15.00	15.90	18.30	20.10
3 7/16	12.50	12.90	13.50	13.80	14.10	15.10	16.20	17.10	21.50	21.30
3 11/16	14.70	15.30	15.90	16.50	17.10	18.00	18.90	20.10	22.50	24.30
3 15/16	15.90	16.50	17.10	17.65	18.30	19.25	20.10	21.30	23.70	25.50

Brand New Rigid Post Blocks

16-X-15. Standard bearing, lubricated through cup cast in cap. Babbitted with the best grade of babbitt for shaft service. Sizes given are the diameter of shaft. 2 7/16 to 3 15/16 Ring Oiling Bearings.

Inch	Each	Inch	Each	Inch	Each	Inch	Each
¾	$1.50	1 7/16	$2.35	2 3/16	$ 8.10	3 3/16	$17.80
1	1.75	1½	2.50	2 7/16	9.50	3 7/16	20.90
1 3/16	2.00	1 11/16	3.00	2 11/16	12.35	3 11/16	28.25
1¼	2.10	1 15/16	3.75	2 15/16	14.25	3 15/16	30.50

16-X-17.

Brand New Safety Set Collars for Shafting

Inch	¾	1	1 3/16	1¼	1 7/16	1½	1 11/16		
Each	25c	30c	35c	38c	40c	45c	50c		
Inch	1 15/16	2 3/16	2 7/16	2 11/16	2 15/16	3 3/16	3 7/16	3 11/16	3 15/16
Each	55c	60c	70c	80c	90c	$1.05	1.15	1.25	1.35

Flange Couplings for Shafting

16-X-19. We can furnish these couplings both new and second-hand. Orders for second-hand couplings are taken subject to stock being on hand at time order is received. **In the event that we are out of second-hand couplings** we will substitute new couplings, at new prices, unless otherwise advised.

Size, Inches.	Brand New.	2nd Hand.	Size, Inches.	Brand New.	2nd Hand.
1 3/16	$6.75	$3.75	2 7/16	$11.25	$ 6.25
1¼	6.90	3.90	2 11/16	13.75	7.65
1 7/16	7.20	4.00	2 15/16	16.90	9.40
1½	7.35	4.15	3 3/16	19.60	10.85
1 11/16	7.65	4.25	3 7/16	22.75	12.70
1 15/16	8.10	4.50	3 11/16	26.35	14.65
2 3/16	9.45	5.25	3 15/16	29.95	16.65

Solid Sleeve Shaft Coupling

16-X-21. Brand new, used only for light shafting.

Size, inch	¾	1	1 3/16	1¼
Price, each	$2.25	$2.35	$2.65	$2.75
Size, inch	1 7/16	1½	1 11/16	1 15/16
Price, each	$3.00	$3.25	$3.38	$4.15

Ribbed Compression Couplings

16-X-23. We can furnish these couplings both new and second hand. In the event we are out of the second hand couplings we will substitute new couplings unless otherwise advised, at new prices.

Size, Inches.	Brand New.	2nd Hand.	Size, Inches.	Brand New.	2nd Hand.
¾	$3.38	$1.80	2 3/16	$ 7.50	$ 4.00
1	3.52	1.95	2 7/16	8.25	4.40
1 3/16	3.75	2.00	2 11/16	9.38	5.00
1¼	3.90	2.15	2 15/16	11.25	6.00
1 7/16	4.50	2.40	3 3/16	14.25	7.60
1½	4.65	2.55	3 7/16	16.15	8.60
1 11/16	5.25	2 80	3 11/16	18.38	9.80
1 15/16	6.38	3.40	3 15/16	21.00	11.20

Patent Compression Couplings

BRAND NEW

16-X-25. These couplings do away with key-seating. Guaranteed to hold the shafting securely and not slip. Easy to install.

Inch	Each	Inch	Each
¾"	$3.50	1 11/16	$ 6.25
1	4.00	1 15/16	8.00
1 3/16	4.75	2 3/16	9.[illegible]
1¼	5.00	2 7/16	10.[illegible]
1 7/16	5.50	2 11/16	13.[illegible]
1½	5.85	2 15/16	16.[illegible]

Jaw Clutch Couplings

Brand New Only

We furnish these only in the square or spiral jaw, the spiral jaws are made either for right or left hand. Always specify in ordering spiral jaw which hand is wanted.

No.16-X-11. Square Jaw.

Note illustration. Prices quoted on coupling include clutch band or lever. Write for prices.

Brand New Rigid Pillow Blocks

16-X-13. Heavy and suitable for all ordinary work, babbitted with the best grade of babbitt for shaft service. **Sizes given** are for diameter of shaft.

Size, inches	¾	1	1 3/16	1¼
Price, each	$0.95	$1.00	$1.20	$1.30
Size, inches	1 7/16	1½	1 11/16	1 15/16
Price, each	$1.60	$1.70	$2.20	$2.38
Size, inches	2 3/16	2 7/16	2 11/16	2 15/16
Price, each	$3.15	$3.82	$4.60	$5.42

See the New Improved Harris "Cream Getter" Cream Separator in This Book!!

Overhauled CAST IRON PULLEYS *Brand New*

16-X-35. We have an enormous stock of overhauled or second hand Iron Pulleys in first class condition, perfectly balanced and for further service practically as good as new. As our stock constantly changes and while we offer a line of sizes, we can not guarantee to furnish second hand pulleys in every instance, so when we are out of second hand pulleys as ordered we will take the liberty of substituting new Iron Pulleys at new prices, unless advised to the contrary. Overhauled Iron Pulleys are fitted with set screws only. Where pulley is ordered "key seated" we will do this work, making small extra charge.

16-X-31. Brand new iron pulleys, made of the very best of gray iron, machine moulded and guaranteed to be perfectly balanced.
Single belt pulleys are made to transmit power of a single leather belt or a 4-ply rubber belt.
Double belt pulleys should be used where a double leather belt or a 5- or 6-ply rubber belt is used for heavy transmission of power.
We furnish pulleys bored to fit any size shaft and fitted with either set screws or key seated without extra charge. If both key seat and set screws are wanted we require an additional small charge. These pulleys have to be made, which takes about 4 days.

Dia. In.	Face In.	Single Belt.	Dble. Belt.
4	6	$2.75	....
4½	4½	2.75	....
5	6	2.95	....
6	3	1.55	....
6	4	1.75	....
6	5	2.00	....
6	6	2.25	....
6	7	2.50	$2.85
6	8	2.85	3.20
7	3	1.70	....
7	4	1.95	....
7	5	2.15	....
7	6	2.45	....
7	7	2.75	3.10
7	8	3.10	3.45
8	3	1.85	....
8	4	2.10	....
8	5	2.40	....
8	6	2.65	3.00
8	7	3.00	3.35
8	8	3.35	3.70
8	9	....	4.05
8	10	....	4.45
9	3	2.05	....
9	4	2.30	....
9	5	2.55	....
9	6	2.85	3.25
9	7	3.20	3.65
9	8	3.55	4.05
9	9	....	4.40
9	10	....	4.85
10	3	2.15	....
10	4	2.45	....
10	5	2.75	....
10	6	3.10	3.50
10	7	3.45	3.90
10	8	3.80	4.30
10	9	....	4.75
10	10	....	5.25
10	12	....	6.25
12	3	2.50	....
12	4	2.85	....
12	5	3.20	....
12	6	3.55	4.05
12	8	4.40	5.00
12	10	....	6.00
12	12	....	7.10
13	3	2.70	....
13	4	3.05	....
13	5	3.45	....
13	6	3.85	4.35
13	8	4.75	5.35
13	10	....	6.45
13	12	....	7.60
13	14	....	8.80
14	3	2.85	....
14	4	3.25	....
14	5	3.55	....
14	6	4.05	4.70
14	7	4.50	5.25
14	8	5.05	5.80
14	10	....	6.95
14	12	....	8.20
14	14	....	9.45
15	3	3.05	....
15	4	3.40	....
15	5	3.95	....
15	6	4.25	5.00
15	8	5.40	6.20
15	10	....	7.45
15	12	....	8.80
15	14	....	10.15
16	3	3.25	....
16	4	3.65	....
16	5	4.05	....
16	6	4.55	5.20
16	7	5.10	5.95
16	8	5.75	6.45
16	10	....	7.75
16	12	....	9.10
16	14	....	10.50
17	3	3.45	....
17	4	3.85	....
17	5	4.40	....
17	6	4.90	5.60
17	8	6.15	6.90
17	10	....	8.25
17	12	....	9.70
18	3	3.65	....
18	4	4.10	....
18	5	4.60	....
18	6	5.20	6.00
18	7	5.80	6.70
18	8	6.50	7.40
18	10	....	8.85
18	12	....	10.40
18	14	....	11.95
20	4	4.65	....
20	5	5.30	....
20	6	5.95	....
20	8	7.30	....

Dia. In.	Face In.	Single Belt.	Dble. Belt.
20	10	$8.90	$10.00
20	12	....	11.80
20	14	....	13.60
22	4	5.20	....
22	5	5.90	....
22	6	6.65	7.55
22	8	8.10	9.30
22	10	9.70	11.15
22	12	....	13.10
22	14	....	15.10
23	5	6.25	....
24	4	5.75	....
24	5	6.55	....
24	6	7.35	8.40
24	8	8.95	10.40
24	10	10.65	12.45
24	12	....	14.60
24	14	....	16.80
26	4	6.30	....
26	5	7.20	....
26	6	8.05	9.35
26	8	9.85	11.55
26	10	11.70	13.85
26	12	....	16.15
26	14	....	18.60
28	4	6.95	....
28	5	7.95	....
28	6	8.95	10.35
28	8	10.90	12.80
28	10	12.95	15.25
28	12	....	17.80
28	14	....	20.45
30	4	7.65	....
30	5	8.70	....
30	6	9.80	11.40
30	8	12.00	14.05
30	10	14.25	16.75
30	12	....	19.50
30	14	....	22.35
32	4	8.35	....
32	5	9.50	....
32	6	10.65	12.50
32	8	13.00	15.35
32	10	....	18.25
32	12	....	21.20
32	14	....	24.30
34	4	9.05	....
34	5	10.30	....
34	6	11.55	13.60
34	8	14.20	16.65
34	10	16.90	19.80
34	12	....	23.05
34	14	....	26.30
36	4	9.95	....
36	5	11.25	....
36	6	13.60	14.80
36	8	15.50	18.10
36	10	18.35	21.50
36	12	21.30	24.95
36	14	....	28.50
36	16	....	32.10
36	18	....	35.75

The Harris Clutch Pulley FOR Cream Separators

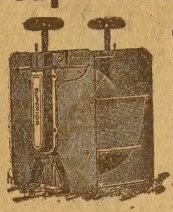
The best clutch pulley on the market to operate cream separator where power is used—picks up the load more gradually and evenly than any other make. The separator is started from rest and reaches its normal speed without a jerk or jar. This adds life to the separator and eliminates unnecessary repairs.

Is simple in design, easy to run; a child may operate it by simply tightening the hand wheel to start it and loosening same to stop it. Only four parts, including the pulley, to the whole outfit; will more than pay for itself in four months' running.

This type of Clutch Pulley also can be used on any other hand-power machine built that doesn't make more than about sixty turns a minute. Simply substitute the Clutch Pulley in place of the hand crank.

Size, 14-inch Diameter; 2-inch Face.
Specify make of Separator and size of Spindle.
16-X-1060. Weight 15 lbs. Price..... **$6.25**

Superior Wrought Iron Boot



16-X-907. These boots are made of heavy sheet iron sides and cast iron frames, and have extra supports or feet that hold the weight of the elevator legs. An essential feature that is found in no other boot. It has side tighteners, a shield to protect bearings from dust, also oil tube for oiling. It is provided with clean-out doors either on side or end as desired. The pulleys are well balanced and all bearings babbitted.

In ordering, give length and projection of buckets. Made with either pulleys or sprocket wheels.

	Size of Bucket Inches	Width Belt Inches	Size of Pulley	Price
No. 1	5x4	4	10x 6	$36.00
No. 2	6x4	6½	12x 7	37.80
No. 3	7x4½	8	14x 9	39.40
No. 4	8x5	9	14x10	46.15
No. 5	9x5	10	16x11	51.30
No. 6	10x5½ to 7	11	16x12	56.25
No. 7	11x6	12	16x13	58.15
No. 8	11x7	12	18x13	59.65
No. 9	12x6 to 7	13	18x14	64.15
No. 10	14x6 to 7	15	18x16	68.65

Dia. In.	Face In.	Single Belt.	Dble. Belt.
4	3	$3.30	....
4	4	3.75	....
4	6	4.80	....
5	3	3.30	....
5	4	3.75	....
5	5	4.30	....
5	6	4.80	....
6	3	3.30	....
6	4	3.75	....
6	5	4.30	....
6	6	4.80	....
6	7	5.40	$6.15
6	8	6.10	6.85
7	3	3.60	....
7	4	4.15	....
7	5	4.65	....
7	6	5.25	....
7	7	5.95	6.60
7	8	6.60	7.35
8	3	4.00	....
8	4	4.50	....
8	5	5.10	....
8	6	5.70	6.40
8	7	6.40	7.15
8	8	....	7.90
8	9	....	8.70
8	10	....	9.55
9	3	4.35	....
9	4	4.90	....
9	5	5.50	....
9	6	6.15	7.00
9	7	6.90	7.80
9	8	7.65	8.65
9	9	....	9.45
9	10	....	10.35
10	3	4.65	....
10	4	5.25	....
10	5	5.95	....
10	6	6.60	7.50
10	7	7.35	8.35
10	8	8.20	9.25
10	9	....	10.20
10	10	....	11.25
10	11	....	12.30
10	12	....	13.45
12	3	5.40	....
12	4	6.10	....
12	5	6.85	....
12	6	7.15	8.70
12	7	8.55	9.70
12	8	9.45	10.75
12	9	....	11.80
12	10	....	12.90
12	11	....	14.05
12	12	....	15.25
13	3	5.50	....
13	4	6.55	....
13	5	7.35	....
13	6	8.25	9.30
13	7	9.15	10.35
13	8	10.15	11.50
13	9	11.20	12.60
13	10	....	13.80

Dia. In.	Face In.	Single Belt.	Dble. Belt.
13	11	....	$15.00
13	12	....	16.30
13	13	....	17.55
13	14	....	18.90
14	3	$6.10	....
14	4	7.00	....
14	5	7.65	....
14	6	8.65	10.05
14	7	9.70	11.25
14	8	10.80	12.45
14	9	11.95	13.65
14	10	....	14.95
14	11	....	16.20
14	12	....	17.55
14	13	....	18.90
14	14	....	20.25
15	4	7.30	....
15	5	8.50	....
15	6	9.15	10.75
15	7	10.30	12.00
15	8	10.65	13.30
15	9	12.90	14.65
15	10	....	16.00
15	11	....	17.40
15	12	....	18.85
15	13	....	20.25
15	14	....	21.75
16	4	7.80	....
16	5	8.70	....
16	6	9.75	11.20
16	7	10.95	12.75
16	8	12.30	13.80
16	9	13.80	15.15
16	10	....	16.60
16	11	....	18.00
16	12	....	19.50
16	13	....	21.00
16	14	....	22.50
18	3	7.80	....
18	4	8.80	....
18	5	9.90	....
18	6	11.10	12.85
18	7	12.45	14.35
18	8	13.95	15.85
18	9	15.60	17.40
18	10	....	19.00
18	11	....	20.65
18	12	....	22.30
20	4	10.00	....
20	5	11.35	....
20	6	12.75	14.50
20	7	14.20	16.20
20	8	15.70	17.95
20	9	17.35	19.75
20	10	19.05	21.55
20	11	....	23.40
20	12	....	25.30
20	13	....	27.25
20	14	....	29.20
22	3	9.55	....
22	4	11.10	....
22	5	12.70	....
22	6	14.25	16.15
22	7	15.85	18.00
22	8	17.35	19.95
22	9	19.00	21.90
22	10	20.80	23.95
22	11	....	25.95
22	12	....	28.05
22	13	....	30.15
22	14	....	32.35
24	3	10.60	....
24	4	12.30	....
24	5	14.05	....
24	6	15.75	18.00
24	7	17.50	20.10
24	8	19.20	22.30
24	9	21.00	24.45
24	10	22.80	26.70
24	11	....	28.95
24	12	....	31.30
24	13	....	33.60
24	14	....	36.00

SOUTH BEND WOOD SPLIT PULLEYS

16-X-29. A special lot of brand new wood split pulleys priced very low.

Wood Split Pulleys do not require either key seat or set screws. They fit to shaft by compression and will pull equally as heavy a load as an iron or any other kind of a pulley without slipping.

We recommend the use of Wood Split Pulleys in all dry places. If out of size ordered in this lot we will substitute overhauled wood split pulley of same size in good, serviceable condition at same price.

Diam. In.	Face, Inches 3	4	5	6	8	10	12
10						$ 3.30	$ 3.72
12				$2.94	$ 3.48	4.02	4.56
14	$2.30	$2.76	$3.09	3.42	4.08	4.74	5.40
16	2.60	3.12	3.51	3.90	4.68	5.46	6.24
18	2.90	3.48	3.93	4.38	5.28	6.18	7.08
19	3.05	3.66	4.14	4.62	5.58	6.54	7.50
20	3.20	3.84	4.35	4.86	5.88	6.90	7.92
22	3.50	4.20	4.77	5.34	6.48	7.62	8.76
24	3.85	4.62	5.28	5.94	7.26	8.58	9.90
26	...	5.04	5.79	6.54	8.04	9.54	11.04
28	...	5.46	6.30	7.14	8.82	10.50	12.18
30	...	5.88	6.81	7.74	9.60	11.46	13.32
32	...	6.30	7.32	8.34	10.38	12.42	14.46
34	...	6.78	7.89	9.00	11.22	13.44	15.66
36	...	7.26	8.46	9.66	12.06	14.46	16.86
38	...	...	...	10.32	12.90	15.48	18.06
40	...	...	...	10.98	13.74	16.50	19.26
42	...	...	...	11.76	14.76	17.76	20.76

Write for prices on larger sizes.

OVERHAULED STEEL SPLIT PULLEYS

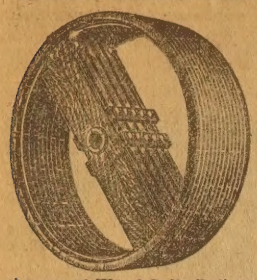
16-X-80. We are constantly receiving steel split pulleys in good, usable condition, which come to us in connection with our daily purchases of factories and complete plants. Steel split pulleys are furnished with bushings. Prices below save you a comfortable amount.

Diam. In	Face, Inches 3	4	5	6	8	10	12
10	$2.85	$3.05	$3.25	$3.50	$ 3.95	$ 4.45	$ 4.85
12	3.15	3.50	3.60	3.90	4.30	4.85	5.75
14	3.40	3.90	4.25	4.65	5.30	6.00	6.75
15	3.50	4.10	4.35	4.95	5.75	6.60	7.45
16	3.75	4.25	4.60	5.20	6.20	7.10	7.90
18	4.15	4.80	5.25	5.75	7.00	8.00	9.00
20	4.50	5.65	6.10	6.75	8.10	9.00	10.70
22	4.90	6.40	7.15	7.70	9.10	10.60	12.60
24	5.65	6.70	7.50	8.25	9.80	11.75	14.30
26	...	7.15	...	9.00	10.80	12.85	16.00
28	...	8.10	...	9.65	11.60	13.60	17.25
30	...	9.00	...	10.60	12.95	14.95	18.55
32	...	9.80	...	11.60	14.50	16.85	21.15
34	...	10.80	...	12.95	16.30	19.15	22.50
36	...	11.90	...	15.00	18.00	21.50	25.30
38	...	14.60	...	16.30	19.80	23.40	27.90
40	...	15.75	...	18.00	21.35	25.30	30.00
42	...	17.45	...	19.70	24.20	28.15	32.65
44	...	...	...	21.95	26.75	30.95	35.45
46	...	...	...	24.75	29.25	33.75	37.70
48	...	...	...	27.55	31.50	36.60	40.50
50	...	...	...	30.65	35.45	40.00	43.90

Write for prices on larger sizes.

IF OUT OF OVERHAULED PULLEYS we shall take liberty of substituting new unless advised otherwise.

REEVES BRAND NEW WOOD SPLIT PULLEYS



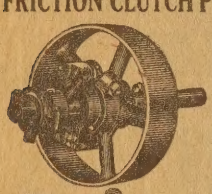
16-X-75. Furnished complete with bushings and guaranteed to run perfectly true on shaft.

Wood Split Pulleys do not require either key seat or set screws. They fit to shaft by compression and will pull equally as heavy a load as an iron or any other kind of a Pulley without slipping.

We recommend the use of Wood Split Pulleys in all dry places.

Diam., In.	Face, Inches 3	4	5	6	8	10	12
4	$2.80	$2.90	$3.10	$3.30	$3.70	$4.10	$4.50
5	2.85	2.95	3.20	3.40	3.85	4.30	4.75
6	2.90	3.00	3.25	3.50	4.00	4.50	5.00
7	2.95	3.05	3.35	3.60	4.15	4.70	5.25
8	3.00	3.10	3.40	3.70	4.30	4.90	5.50
9	3.10	3.25	3.60	3.90	4.55	5.20	5.85
10	3.25	3.40	3.75	4.10	4.80	5.50	6.20
11	3.50	3.70	4.10	4.50	5.30	6.10	6.90
12	3.75	4.00	4.45	4.90	5.80	6.70	7.60
13	...	4.30	4.80	5.30	6.30	7.30	8.30
14	...	4.60	5.15	5.70	6.80	7.90	9.00
15	...	4.90	5.50	6.10	7.30	8.50	9.70
16	...	5.20	5.85	6.50	7.80	9.10	10.40
17	...	5.50	6.20	6.90	8.30	9.70	11.10
18	...	5.80	6.55	7.30	8.80	10.30	11.80
19	...	6.10	6.90	7.70	9.30	10.90	12.50
20	...	6.40	7.25	8.10	9.80	11.50	13.20
22	...	7.00	7.95	8.90	10.80	12.70	14.60
24	...	7.70	8.80	9.90	12.10	14.30	16.50
26	...	8.40	9.65	10.90	13.40	15.90	18.40
28	...	9.10	10.50	11.90	14.70	17.50	20.30
30	...	9.80	11.35	12.90	16.00	19.10	22.20
32	...	10.50	12.20	13.90	17.30	20.70	24.10
34	...	11.30	13.15	15.00	18.70	22.40	26.10
36	...	12.10	14.10	16.10	20.10	24.10	28.10

FRICTION CLUTCH PULLEYS For Line Shafts and Machines of all Kinds



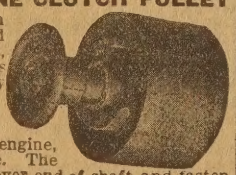
The **Friction Clutch Pulley**, by its use a gradual starting or stopping of the pulley may be effected by throwing the lever in and out, also the reduction in cost of maintenance and saving of power. **Lot 16-X-290.**

Furnished complete with collar, lever and yoke. When ordering, advise size of shaft, H. P. and speed.

Dia. In.	Face In.	Price	Dia. In.	Face In.	Price
6	3	$14.10	12	6	$22.60
6	4	14.55	14	3	17.25
6	6	16.30	14	4	18.25
7	3	14.40	14	6	23.95
7	4	14.95	16	3	18.60
7	6	16.80	16	4	19.75
8	3	14.70	16	5	24.20
8	4	15.40	18	3	19.45
8	6	17.25	18	4	20.90
10	3	15.70	18	5	25.70
10	4	16.45	20	3	20.50
10	6	18.60	20	4	24.85
10	8	23.95	22	3	22.45
12	3	16.45	22	4	27.05
12	4	17.35	24	3	26.40

Write for Prices on Larger Sizes

GASOLINE ENGINE CLUTCH PULLEY



16-X-291. This Clutch Pulley is compact and efficient; is inexpensive, and very simple; has fewer parts than any other clutch made.

Our Gasoline Engine Clutch Pulleys can be attached to any engine, new or old, by any one. The pulley is made to slip over end of shaft and fasten with key or set screws. Prices on larger sizes quoted on application.

Size	Cap. 1 to 4 H.P. Price	Cap. 4 to 8 H.P. Price	Size	Cap. 1 to 4 H.P. Price	Cap. 4 to 8 H.P. Price
6x4	$13.75	$17.15	10x6	.....	$21.75
6x6	15.40	20.90	12x4	$16.50	19.30
8x4	14.60	17.15	12x6	.....	21.45
8x6	16.50	19.00	14x4	17.50	20.35
10x4	15.70	18.45	14x6	.....	23.75

When ordering Gasoline Engine Clutch Pulleys, always state width and depth of key seat, diameter of crank shaft, length of projecting shaft, H. P. of engine and speed of engine.

LINK CHAIN BELTING

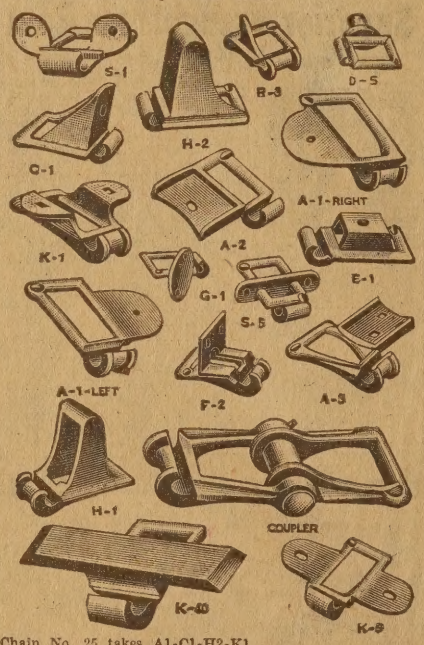
16-X-309. Brand new, for on Mowers, Reapers, Binders, Corn and Wheat Drill, Corn Shellers, Straw Stackers, Feed Cutters, Saw Dust Conveyors, etc.

When ordering chain be sure and give number. If the chain is so worn that number is effaced, it is advisable to send a sample link.

No.	Links per Ft.	Working Strain	Approximate Leather Belting in. Single	Price per Ft.
25	13.3	75 lbs	1 in	$0.16
32	10.4	150 lbs	1½ in	.17
33	8.6	200 lbs	2 in	.16
34	8.6	225 lbs	2½ in	.18
35	7.4	250 lbs	2½ in	.20
42	8.8	300 lbs	3 in	.20
45	7.4	350 lbs	3½ in	.17
51	10.4	375 lbs	3½ in	.24
52	8.0	400 lbs	4 in	.24
55	7.4	450 lbs	4 in	.21
57	5.2	600 lbs	6 in	.26
62	7.3	650 lbs	6½ in	.29
67	5.2	700 lbs	7 in	.30
77	5.2	750 lbs	7½ in	.33

ATTACHMENT LINKS FOR CHAIN BELTING

16-X-23. Attachment Links are made to the sizes of chains as listed below, and must not be ordered, except to match the size we state they will fit. For example, it will be noticed that the A2 attachment is only made for Nos. 35 and 55 chain, and must not therefore be ordered to be used on any other size.



Chain No. 25	takes	A1-C1-H2-K1
" 32	"	A1-C1-E1-K1
" 33	"	A1-E1-K1-S1
" 34	"	A1-C1-E1-K1
" 35	"	A1-C1-E1-K1-S1
" 42	"	A1-C1-K1-S1
" 45	"	A1-A2-C1-E1-F2-G1-K1-K40-S1
" 52	"	A1-A3-F2-K1
" 55	"	A1-C1-E1-F2-K1-S1-S5
" 57	"	A1-F2-K1
" 62	"	A1-C1-D5-K1-K5-K40-S1
" 67	"	A1-D5-E1-F2-G1-K1
" 77	"	A1-D5-E1-F2-G1-H1-K1-R3

Attachments for No. 25 and 32 Chain, Each	6c
Couplers for No. 25 and 32 Chain, Per Pair	12c
Attachments for Nos. 33, 34 and 42 Chain, Each	8c
Couplers for Nos. 33, 34 and 42 Chain, Per Pair	16c
Attachments for Nos. 35, 45, 52, 55 and 62 Chain, Ea.	10c
Couplers for Nos. 35, 45, 51, 52, 55 and 62 Chain, Per Pair	20c
Attachments for Nos. 57, 67 and 77 Chain, Each	12c
Couplers for Nos. 57, 67 and 77 Chain, Per Pair	24c

The Chain Couplers are a most useful device to place and connect link belting around the sprocket and have it without slack, and is equally desirable in taking it off the sprocket.

When ordering attachments A-1, A-2 or A-3, advise whether you want Right or Left style.

BRAND NEW SPROCKET WHEELS

16-X-305. Used in connection with Link Belting.

We will furnish these bored to fit any size shaft not exceeding the size described, in connection with each number.

In ordering be sure and state size of shaft and whether the sprockets are to be key-seated or set screws. Unless otherwise specified they will be furnished with set screws.

NO. 25—BORE 1 7-16 INCH AND LESS

Dia. In.	Teeth	Price Ea.	Dia. In.	Teeth	Price Ea.
2	7	$2.40	7½	26	$3.45
2½	8	2.40	8	28	3.60
2¾	9	2.50	10	35	4.20
3	10	2.55	12	42	5.05
3½	12	2.55	13	45	5.25
4	14	2.70	14½	50	5.85
5	17	2.85	15	52	6.10
5½	19	2.95	16	56	6.55
7	24	3.30	18¾	64	7.50

NO. 32—BORE 1 7-16 INCH AND LESS

Dia. In.	Teeth	Price Ea.	Dia. In.	Teeth	Price Ea.
2	5	$2.50	8¼	22	$3.70
2¾	7	2.50	9	24	3.90
3	8	2.55	10	27	4.30
3½	9	2.65	11¾	32	4.95
4¼	11	2.80	12½	34	5.25
4½	12	2.85	13¼	36	5.55
5¼	14	3.00	14	38	5.75
6	16	3.15	14¾	40	6.15
7½	20	3.45			

NOS. 33 AND 34—BORE 1 7-16 INCH AND LESS

Dia. In.	Teeth	Price Ea.	Dia. In.	Teeth	Price Ea.
2¾	6	$2.55	10¾	24	$4.65
3½	8	2.70	12	27	5.20
4½	10	2.85	13½	30	5.70
5	11	3.00	15¼	34	6.30
5½	12	3.10	16	36	6.70
6½	15	3.45	18¼	41	7.60
8	18	3.75	18¾	42	7.75
8½	19	3.90	24	54	9.75
9	20	4.05	28½	64	12.00

NOS. 35, 45, 55—BORE 1 15-16 INCH AND LESS

Dia. In.	Teeth	Price Ea.	Dia. In.	Teeth	Price Ea.
2½	5	$3.00	17¼	33	$8.55
3¾	7	3.15	18¼	35	9.10
4¾	9	3.30	20¼	39	10.20
5¾	11	3.55	21¾	42	10.95
7	13	3.75	22¾	44	11.50
7¾	15	4.15	23¾	46	12.00
8¾	17	4.50	24¾	48	12.55
10	19	4.95	25¾	50	13.15
11	21	5.40	28	54	14.25
12	23	5.95	30	58	15.55
15	29	7.50	31¼	60	16.30
16	31	8.05	36	69	19.30

NO.42—BORE 1 11-16 INCH AND LESS

Dia. In.	Teeth	Price Ea.	Dia. In.	Teeth	Price Ea.
2¾	6	$2.80	9½	22	$4.65
3¾	8	2.95	11½	26	5.40
4¾	11	3.15	12¼	28	5.75
5¼	12	3.25	14	32	6.40
6¼	14	3.45	15½	36	7.20
7	16	3.75	18	41	8.20
8	18	4.05	20	46	9.30
8¾	20	4.35	24	55	11.10

NO. 52—BORE 1 15-16 INCH AND LESS

Dia. In.	Teeth	Price Ea.	Dia. In.	Teeth	Price Ea.
2¾	6	$2.95	15¼	32	$7.45
4	8	3.00	17¼	36	8.40
5	10	3.25	19¼	40	9.45
5¼	11	3.40	22	46	10.45
6½	14	3.75	23¾	49	11.70
7½	16	4.05	24½	51	12.25
8¾	18	4.35	25	52	12.45
9½	20	4.75	26½	55	13.20
10¾	22	5.10	27¾	58	13.90
12½	26	6.00	28¾	60	14.50
13½	28	6.45	30½	64	15.55

NOS. 57, 67, 77—BORE 2 7-16 INCH AND LESS

Dia. In.	Teeth	Price Ea.	Dia. In.	Teeth	Price Ea.
4½	5	$3.45	19¾	27	$10.65
4¾	6	3.45	22	30	11.85
5½	7	3.60	23½	32	12.75
6	8	3.85	25	34	13.15
7½	10	4.35	26	36	14.55
8¾	12	4.95	28	38	15.45
10¼	14	5.65	30	41	16.80
11¾	16	6.40	32½	44	18.15
13¼	18	7.15	36	49	20.65
14¾	20	7.90	38½	52	22.20
16½	22	8.65	41½	56	24.30
17½	24	9.40			

NO. 62—BORE 2 7-16 INCH AND LESS

Dia. In.	Teeth	Price Ea.	Dia. In.	Teeth	Price Ea.
3¾	7	$3.25	12	23	$6.15
4¼	8	3.30	13¾	26	6.85
5	9	3.45	14¾	28	7.35
5¼	10	3.55	16	30	7.95
5¾	11	3.70	18	34	9.15
6¼	12	3.85	20	38	10.35
6¾	13	4.00	21½	41	11.25
7¼	14	4.15	23	43	11.85
8	15	4.35	25¼	48	13.50
8¼	16	4.60	30½	58	17.70
10	19	5.25			

Our Pulley and Belting Bargains Will Interest You!